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ABSTRACT

The project studied a critical aspect of school performance, how children know how to display interactional competence during classroom lessons. Using videotapes of classroom lessons and interviews with participants, the study analyzed the language used by teachers and students as well as their physical behaviors to infer the knowledge needed for learners to function successfully. The participants in the study were teachers and students in a kindergarten, a second- and a fifth-grade classroom in which Spanish and English were the language of instruction. The findings were that in order to be interactionally competent, students must be able: (1) to recognize when lessons and episodes begin and end; (2) to know and follow the rules which govern them in order to participate appropriately by listening, soliciting a turn-at-talk, and/or responding to a teacher initiated turn as well as to initiate the negotiation of new episodes. These findings suggest that teachers facilitate the acquisition of classroom interactional competence and student learning by having consistent and clear instructional practices. These understandings provide an improved basis for establishing appropriate and equitable classroom experiences for monolingual and bilingual students and for recognizing the importance of not assuming that students need no help in learning classroom procedures. (Author/AMH)

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FINAL REPORT

For NIE Grant No. NIE-G-80-0196

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September 30, 1980 - April 1, 1982

An Investigation Into Bilingual Students' Classroom Communicative Competence

FL 013 773

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An Investigation Into Bilingual Students' Classroom Communicative Competence

Final Report for the National Institute of Education

July 1, 1982

Rita S. Brause, John S. Mayher and Jo Bruno

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We are responsible for any flaws.

Executive Summary

I. The Issue: To study the nature of classroom communicative competence in bilingual, elementary classrooms.

II. The Approach: To collect data in natural settings in three bilingual public elementary classrooms periodically throughout the 1980-19[illegible] academic year. To analyze the data to generate hypotheses concerning the nature of interactive competence in bilingual classrooms. We utilized an ethnographic, interactive analysis to generate hypotheses and general conclusions.

III. Conclusions

The conclusions are grouped in four categories: Classroom Organization; Bilingual Classes; Individual Differences, and Research Design.

Classroom Organization

1. Bilingual classes are organized into "lesson" time and "getting ready" for lesson time.
2. Students display classroom communicative competence in these bilingual classrooms by participating in the negotiation of classroom events including turn-taking; accomplishing lessons; and organizing lessons. Students in bilingual classrooms who are considered communicatively competent display a range of behaviors including:
   - recognizing there are times when there are lessons, and times when they are getting ready for lessons;
   - participating in the negotiation of activities;
   - recognizing that lessons are comprised of episodes having different, but systematic and interactive rules, responsibilities, language styles and physical displays which are often not linearly ordered;
   - recognizing that lessons in both languages entail similar, systematic, interactive rules, responsibilities, language styles and physical displays.
   - recognizing that allocation of turns-at-talk may be Teacher Imposed or Student Solicited;
   - recognizing the systematic, interactive nature of classroom events;
   - recognizing the opportunities for obtaining a turn-at-talk.

3. Classroom organizations are negotiated, e.g. Teachers in concert with students pace movement of activities; Turns-at-talk are allocated through a complex, interactive negotiation process involving the students and the teacher.
4. Classroom lessons in the bilingual classes we studied are predictably patterned. These are organized by verbal and visual displays. A lesson is typically comprised of several episodes all related to the same objective, but each identified by distinct verbal products, visual displays and rules thereby distinguishing episodes within lessons. Representative activities include: Talking About Time; Copying Time and Checking-at-the Blackboard Time. These events are not necessarily linearly ordered.
5. Episodes conducted by the same teacher in Spanish or English entail the same systematic, interactive rules, responsibilities, language styles and visual displays, regardless of the language used.
6. Allocation of turns-at-talk in bilingual classrooms may be Teacher Imposed or Student Solicited.
7. Opportunities for turns-at-talk, whether Teacher Imposed or Student Solicited in bilingual classrooms are differentially allocated.
   - Turns-at-talk are systematically held for some;
   - Some are rarely included;
   - Some are allocated frequent turns but considered demanding of inordinate attention.
8. Participation procedures in bilingual classrooms are systematic.
9. To participate in bilingual class activities, interactants display different behaviors during these differing events (e.g. episodes; lessons; turn-allocation opportunities).
10. Bilingual maintenance classes facilitate student learning of these classroom communicative competencies through systematic practices across languages.

Bilingual Classes

1. In the bilingual (Spanish/English) classrooms we studied, the classroom organizations remained constant across the language contexts. Similar episodes appeared in both languages.
2. The different types of participating behaviors (ranging from auditing to soliciting turns) are present in episodes across languages.
3. Similar types of turns-at-talk are available across languages.

Individual Differences

1. The quantity and quality of classroom participation of individual students varies.

Research Design

1. Through a holistic, interactional ethnographic analysis it is possible to understand the nature of classrooms and the nature of classroom communicative competence.

IV. Hypotheses

Hypotheses generated from our findings are far reaching, and are grouped in five categories: Classroom Organization; Bilingual Classrooms; Individual Differences - Students; Individual Differences - Teachers; and Learning.

Classroom Organization

1. Bilingual classrooms are organized similar to monolingual classrooms.
2. Classroom interactants who are aware of the factors contributing to classroom communicative competence may become more efficient interactants.
3. A student's relative importance to the classroom functioning may be discerened by identifying the quantity and quality of the turns allocated to each individual.
4. Secondary level and university classrooms are organized similar to elementary classrooms.

Bilingual Classrooms

1. Teachers in bilingual classrooms may use strategies not typically found in monolingual settings.
2. Participation in a bilingual classroom may permit students the opportunity to become conscious of the lengthy and exacting process of increasing language facility.
3. Differences in student participation are particularly evident in bilingual settings where students display behaviors related in part to their language fluencies, which may influence the quantity and quality of their participation in specific classroom events.
4. Participation in bilingual maintenance programs may promote an increased awareness on each participant's part, of success in language, and thereby learning abilities in general.
5. Participating in bilingual maintenance programs may dissipate tensions, promoting a harmonious atmosphere in the classroom and the school.

Individual Differences - Students

1. Individual students, across language contexts, interact differently, thereby differentially contributing to the accomplishment of lessons.
2. Teachers systematically differentiate among participants as evidenced by their allocation of turns-at-talk.
3. Student growth may be monitored by noting their participation in both their fluent and their less familiar languages, ranging from auditing, to accepting a teacher-imposed turn, to soliciting a turn-at-talk.
4. A student's relative importance to the classroom functioning may be negotiated by the student in interaction with peers and the teacher, as evidenced by obtaining turns-at-talk.

Individual Differences - Teachers

1. Teachers negotiate the activities in classrooms differently.
2. Teachers allocate turn-taking opportunities differently.
3. Teachers may allocate turns based on student's racial background, ethnic background and/or social class.

4. The frequency and duration of loops, or interruptions, or getting ready time may correspond inversely with the quantity and quality of instruction.

Learning

1. Teachers who devote extensive time on organizational issues (as obtaining a joint focus) limit the amount of class time devoted to concept development.
2. Some turns-at-talk are more valuable in increasing understanding than others.
3. Students fluent in one language utilize the formats acquired through participating in activities conducted in their fluent language in bilingual maintenance programs to facilitate participation in lessons conducted in their less fluent language.
4. Learning occurs at all times during the day, i.e., during "lessons" and during "getting ready" time.
5. Participation in turn-taking activities contributes to learning.

V. Implications

A. For Educational Practice

Teachers may facilitate student participation in bilingual class activities by becoming aware and conveying the knowledge to their students of the rules, responsibilities, language styles and physical displays characterizing episodes and interactions.

Teachers may critically evaluate the bilingual classrooms they lead and determine their influence on students' performance/functioning in the classroom (e.g. student participation; student acquisition of classroom competence; and student's self-concept).

Bilingual classrooms provide the opportunity for earlier classroom participation for children with minority language fluency.

Bilingual classrooms, as organized in the school we studied, provide a humane environment for learning.

Techniques for obtaining and maintaining a joint focus should be a concern of teacher educators and school supervisors in preparing bilingual teachers.

Bilingual teachers should understand the complex nature of classroom organization (e.g., obtaining and maintaining a joint focus).

The teacher's systematic study of organizational issues may provide more time for focusing on learning concepts.

Bilingual teachers need to recognize the negotiated, interactive nature of classroom activities.

The attitudes of participants in bilingual classroom interactions need to be understood and discussed.

Individual participants create their own interpretations of activities and events which need to be monitored for consensus to be achieved on what a "lesson" accomplished.

B. For Research

From Our Data

The nature of classroom activities during times when there is no joint focus needs to be studied.

The overriding concern for determining the curricular learning that is occurring is in need of study.

From New Data

Studies of different bilingual focus (transitional; immersion) are needed to determine the differences and similarities evidenced in classroom competence.

Studies of monolingual classrooms are needed to compare the organization in these with the classrooms we studied.

The nature of student learning through participation in school activities is in need of study.

The nature of classroom organization in secondary schools (bilingual and monolingual) should be studied.

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1.0 Introduction/Overview

Our study of the nature of classroom competence in bilingual elementary classes focused on three bilingual (Spanish/English) classrooms (Kindergarten, Second Grade and Fifth Grade) in one public school in New York City. The importance of classroom interactive competence is discussed in Sections Two and Five of this report.

Data for the study included: videotapes of classroom activities throughout the school year (1980-1981); field notes and interviews with participating teachers and students. We developed efficient but complex data collection and analysis procedures which are explained in Section Three of this report.

Our study focused on three classrooms and three teachers in one school. Our findings, therefore are derived from these data and thus we present tentative conclusions believing these classrooms are representative of many educational settings, but recognizing the limitations on our ability to generalize. This study was mounted to generate hypotheses which may be tested on a larger population. Section Four of this report presents a detailed description of the findings. Classroom communicative competence is evidenced by sensitivity to the following findings:

- Bilingual classes are organized into "lessons" or time they are "getting ready" for "lessons".
- Activities in bilingual classrooms are negotiated social interactions.
- Lessons conducted in bilingual classrooms are comprised of episodes having different but systematic and interactive rules, responsibilities, language styles and physical displays (These episodes are not necessarily linearly ordered.)
- Episodes conducted by the same teacher in Spanish or English entail the same systematic, interactive rules, responsibilities, language styles and physical displays.
- Allocation of Turns-at-Talk in bilingual classrooms may be Imposed by the teacher of Solicited by the student.
- Rules for participating in bilingual classroom interactions are systematic.

- Opportunities for turns-at-talk in bilingual classrooms are differentially allocated.

- Turns-at-talk are systematically held for some.

- Some are rarely included.

- Some are allocated frequent turns but considered hyperactive.

- To participate in bilingual class activities, interactants recognize these differing events (e.g.: episodes; lessons; turn-allocation opportunities.)

- To understand these events, a holistic, interactional analysis is essential.

In Section Five we discuss the conclusions, and the implications derived from the findings as they may influence educational practice and educational research.

2.0 The Issue: How Does A Student in a Bilingual Classroom Display Classroom Communicative Competence? What Characterizes Functioning in Bilingual Classroom Activities?

One important issue in studying the nature of schooling is to understand how students participate in classrooms. This issue has been addressed as functional classroom competence, Interactional Competence and Acceptable Class Behavior. We will present our analysis, building on the work particularly of Cahir and Kovac (1981), Griffin and Shuy (1978), McDermott (1974) and Mehan (1974; 1979). Specifically, we will identify different methodological and empirical issues generated from similar data. The same turn-taking behaviors were observed, but we believe a different, more holistic analysis is appropriate.

We studied classrooms as social systems to determine the rules that participants follow, as previously discussed by Birdwhistell (1970); Cazden, John and Hymes, (1972); Erickson (1979); Florio (1978); McDermott (1978) and Scheflen (1973; 1979). Focusing on three bilingual elementary classrooms, we sought to determine the nature of classroom communicative competence.

Motivated by our concern for student learning in bilingual classrooms we were interested in determining the information present in classroom interactions which informed behaviors. This concern is part of a larger body of research and theory regarding the nature and development of "functional competence" or classroom competence. Shuy (1978) presented a most persuasive argument for studying this concern and several important reports addressing school language and achievement have been published (Mehan, 1979; McDermott, et al, 1979; Griffin and Shuy, 1968; and Steinberg and Cazden, 1979). We mounted the study with two major assumptions: 1) that students who followed the teacher's directives were "competent" in the classroom and 2) that the teacher's directives which were evidenced exclusively in teacher verbal output were autonomously initiated.

Recognizing the interactive nature of communication situations, including linguistic and pragmatic concerns, this project involved not only an analysis of the linguistic information provided, but also all the other input of both the teacher and the students. Thus, this report presents a description of aspects of three classroom contexts established between the teachers and the students in organizing instructional situations in extant classrooms.

The interactive nature of the communication process if reflected in part in the dynamics resulting from the language of teachers who provide explicit and implicit directives to structure classroom organization. This is not a linear process, nor is there a one-to-one correspondence between the teacher's utterance and class action. This suggests that there is a difference between what is said and what is intended (see Dore & McDermott, forthcoming).

Thus, the negotiated process evident in classroom organization is described. This negotiation serves two purposes. One is to inform hearers (usually students) of the intent of the message. The second is to adjust the speaker's (usually the teacher's) intent to something the hearers (usually the students) are likely to comply with.

In pilot data collection we observed repeated styles of teacher language used in requesting student action. A dichotomized set of categories was identified (see Figure 2.1). The representative utterances and categories listed are merely suggestive of the variety of utterances to which a child is exposed in a short period of time. His or her ability to perform appropriately (raising hand, answering or completing an action), is evidence of his or her functional competence, an ability which is likely to affect the level of success each student attains in a given classroom. When teachers are conveying information, stimulating student thinking, or evaluating student understanding, they are simultaneously directing the activities of the classroom. The major thesis presented here is that for students to be successful in school, they need to understand both the rules of the game and the academic information. An argument may be mounted for the former being essential and sometimes equated with the latter (see for example, Mehan, 1979).

Through our research we recognized that there are many changes in direction and modifications of directives based on a variety of factors which are only apparent on careful scrutiny of the videotapes preserving the lessons. More importantly, we found that while it was impossible to unilaterally determine explicit from implicit directives, an issue we will discuss in the section on procedures, it was also impossible to analyze the linguistic data separate from the total context in which it was produced.

Direct

(Verbal Input)

I. Questions
   - A. Real Information
     Who can think of some words?
   - B. Rhetorical
     Will you fill the water jars for painting?

II. Statement
   You have to draw now.

III. Imperatives
   - A. Single
     Tell me your name.
   - B. Compound
     Don't state now; just listen.
   - C. Implied Compound
     Put the towel where it belongs.

IV. Imperative Question
   Give me a hand with the slide, will you?

Indirect

(Verbal Input)

I. Questions
   - A. Real Information
     1. Yes/No: Do you know where the library is?
     2. Wh-embedded: Why do you think the boy is running?
     3. Why-: Whose name is this?
   - B. Rhetorical
     1. Wh-questions: Why are you holding your book?
     2. Yes/No: Is everyone ready for lunch?

II. Statements
   - A. Rules: You have to put it there.
   - B. Confirmation: That's my truck.
   - C. Organizational Device: Hands, please.
   - D. Personal Needs: I'll be very happy if you paint the circle blue.
   - E. Hints (Elaborated Oblique Statements): I can only listen to one person at a time.

III. Statement-Questions: That's my truck, right?

IV. Imperatives
   - A. Single: Let's read a story.
   - B. Multiple: Listen to me and think in your head.

Figure 2.1 Categories of Teachers' Requests

Theoretical Bases

One of the responsibilities which accrues to teachers in traditional classroom settings is the organization of the classroom. The teacher determines the activities to be engaged in and the procedures to be established in fulfilling these objectives. As in all social situations, for the individual to be successful, s/he must know the rules. Jackson (1968) has shown persuasively that a large portion of the "learning" required in the early school years is learning to go to school. Central to such learning is the ability to understand and appropriately respond to the teacher's expectations conveyed in requests and assignments.[1]

Shuy (1978) stresses, "In terms of the mismatch between child language and school language, a great deal needs to be learned about functional language. It is my opinion that mismatches in this area offer considerably greater interference than anything researched in the past" (p. 102). The knowledge which contributes to this success in school appears to be culture specific. Shuy (1978) suggests, "What remains to be researched (about functional language) are specifics concerning the functional language competence necessary for effective interaction in an educational setting and a comparison of the realization of such competence across cultures" (p. 104).

The teacher must become aware of the potential interpretations students must impose on different utterances and help students learn to match their interpretations with the expectations of the speaker, thereby facilitating classroom functioning. As part of the concern, the teacher must identify the meanings conveyed in different messages. For example, if the teacher says to a student "Will you please sit down?" the student may interpret this on a superficial level as a question with the decision open to the student. However, the teacher may assume that the student will interpret the remark as a polite form which is actually ordering the student to sit. If there is not a match of meanings, con-

---

[1] See the following for additional information: Barnes, Britton, and Rosen (1971); Bernstein (1974); Brause (1977); Brown (1973); Cazden, John and Hymes (1972); Chomsky (1969); Chomsky (1957; 1965); Cicourel, et al. (1974); Creber (1972); Donaldson (1978); Gleitman and Gleitman (1970); Griffin and Shuy (1978); Hymes (1972); Labov (1971; 1972); Mayher (1979); Nelson (1974); Sinclair and Coulthard (1975) and Stubbs (1976).

flict is likely to develop, although unintentionally. This hypothetical incident is typical of a large percentage of teacher-initiated classroom discourse suggesting the need for identifying certain types of functional competence essential for students to be successful in the early school years. Implicit in this foregoing discussion is that the student's success is determined in part by his/her ability to appropriately interpret and respond to directives originating in the teacher's language. Directives were identified as one major type of language used in classrooms, thereby intending to delimit the linguistic input to be studied.

An interesting analogy to student competence may be teacher competence as discussed by Denscombe (1977).

> Competence is regarded as a shared method for interpreting events; teacher competence appears to own more to control in the classroom than to the inculcation of knowledge per se. Competent teachers are expected to achieve control without the aid of others and are considered responsible for the control of their own classrooms.
>
> Classroom teaching, however, rarely becomes observable to colleagues. To assess the control of others, therefore, teachers have to rely on publicly available indicators which transcend the isolation of setting, principally, noise. Control, then, is a socially organized phenomenon which is inferred rather than observed.
>
> p. 198

In the following sections we will discuss our procedures, findings, and analysis of the findings, as they are related to the concerns stated here.

3.0 The Approach: Description of Class Observed and Procedures for Data Collection and Analysis

3.1 A Description of the School, the Classes Studied and their Bilingual Experience

We intensively studied three classrooms in one bilingual public elementary school located in an economically depressed neighborhood in New York City for one school year. The building was constructed during the 1920's and represents the red stone Gothic-like architecture typical of that period.

The program offered by the school is atypical of most in the system. Its intent is to develop fluent, coordinate bilingual students, two-thirds of whom are non-native speakers of English. Thus the classes we studied were comprised of both Spanish and English native speakers who were being educated in both languages to increase their expressive and receptive abilities in both languages. Other classes in the same school enrolled Haitian students with native speakers of English and instruction is in French and English.

Although the philosophical rationale for the school's program was that of developing and maintaining coordinate bilingual abilities in all of the students, in actual practice the amount of time devoted to using each language varied considerably. Each teacher had individually determined priorities, and idiosyncratic ways of using the language. In the description of the classes that follows some attention will also be paid to how each teacher and class functioned bilingually.

To preserve anonymity while facilitating recall of the individuals we will identify the teachers as Ms. K (the Kindergarten teacher), Ms. Two (the Second grade teacher) and Ms. Five (the Fifth grade teacher).

3.11 Kindergarten

Ms. K taught one of the kindergarten classes at the school. (The students called her by her first name). The kindergarten room was built to provide approximately double the space of that allocated to the second grade. (In addition to the difference in size, students had access to toilets built into the room providing supervised unscheduled access throughout the day.) Although there were large windows and the room was located on the first floor, the noises from outside did not seem to intrude. Perhaps this may be attributed to the constant bustle that accompanied all of the activities in the room, so that there

was no stillness to violate here.

The room arrangement here was not predictable. (The chart in Figure 3.1 shows a fairly common pattern). One day we might find a small group seated on the floor near the blackboard and others seated on chairs around a long line of connected tables. At other times, six students might be seated at each table drawing or they might all be facing the blackboard where the teacher was explaining a diagram. There was constant movement in the room: students moved chairs to new locations; physical activities were interspersed throughout the day (frequently utilizing concepts presented in previous activities); the teacher routinely incorporated many students at the blackboard as part of their daily activities. The room was organized to provide for individual student activities (at times with the assistance of an aide) including painting, matching figures, and drawing as well as interactive ones such as the block corner. Materials were organized by Ms. K and the students participated in the distribution of materials through a systematically developed procedure.

The teacher's desk was located at one side of the front of the room. The teacher rarely went to the desk while students were in the room. When the students were not there, the teacher was busily engaged in preparing materials for their return, sometimes utilizing her desk.

Hanging from the fluorescent fixtures were student designed and commercially prepared mobiles. The walls were covered with children's artwork, each a unique creation.

Although there were 24 students in this class, Ms. K always seemed to know where each student was. Her monitoring was so finely timed that she rarely reprimanded a student's behavior, having eliminated the possibility of such by diverting the student's attention to more acceptable activities before such a confrontation occurred. When a student arrived late for class escorted by his/her parent, Ms. K would greet the parent in his/her native language, thank him/her for bringing the child and welcome the child, encouraging rapid inclusion in the class' activity.

In this class it was not unusual for a student who was tired to be encouraged to place his/her head on the table and rest. The child was not ostracized when doing something different from the group unless

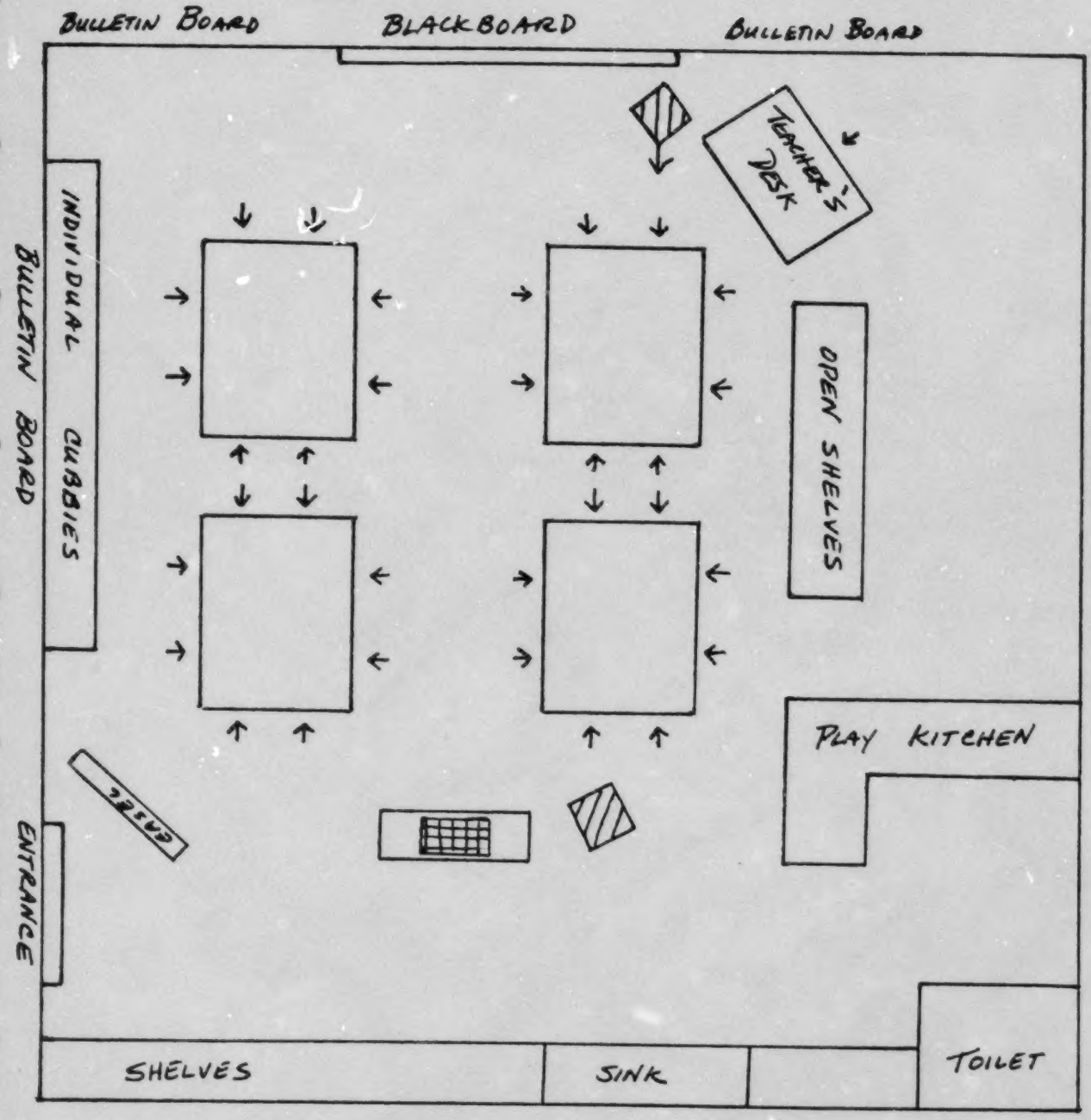


Figure 3.2 Typical Kindergarten Classroom Physical Organization

symbolizes camera focused on subsection of students in class

symbolizes camera focused on teacher wherever she moved

symbolizes table

symbolizes direction student's chair faced

betamax
screen splitter
monitor

the activity was potentially dangerous or inconsiderate of others. There seemed to be a free-flowing atmosphere in the class with students asking Ms. K to bring in toys for them or to discuss certain topics, which she was agreeable to doing. Thus there appeared to be a collaboration between the teacher and the students concerning the daily activities. Students in the room accepted responsibility for individually completing projects. They also were concerned that all of the students were given equal opportunities and helped their peers to accomplish assigned tasks so that there was a group focus here rather than individual competition.

Recognizing the students' needs for frequent movement and peer interaction, Ms. K provided for these throughout the day, requiring silent attention for only limited periods during the day. Even during story time she was receptive to students' spontaneous reactions and used these to help others understand the story. There seemed to be a pleasant, happy, while focused atmosphere in this classroom. This free-flowing atmosphere resulted in a less predictable time organization. Although a series of activities were planned by Ms. K, she responded to the students' actions, modifying her plans to accommodate their concerns. Thus activities might take five minutes or 25 minutes - depending on this responsive interaction.

Ms. K, whose mother's tongue was Spanish was born in New York City, and maintained her bilingual fluency mainly through social interactions. Her formal education was mainly in English. In her classroom she maintained the division of the two languages. When a story was read in Spanish, all discussion related to it also was conducted exclusively in Spanish. The same was true for English lessons. Only in emergency type situations would she switch languages when verifying the physical well-being of students during a lesson conducted in their second language. Objects and actions were used to convey concepts here - as in bouncing basketballs and students jumping a designated number of times to develop number concepts. Some of these short activities were repeated to provide additional opportunities for students to internalize the ideas. These lessons in Spanish alternated with English lessons, as was the case in the other two classes observed. Thus, a student always knew that if the ongoing lesson was not conducted in his/her

native language, it was most likely that one of the next lessons would be.

When Ms. K reviewed some of the videotapes she discussed her concern for previously unnoticed behavior during an activity and the different student participation styles. Her concern for her students was evident on entering the classroom and throughout her interactions with the class and the research team.

3.12 Second Grade

Ms. Two's class was comprised of 26 second graders (everyone called her by her first name, at her request, "Because we are friends"). Since the room was located at a corner of the building, the double exposure and the large windows provided magnificent light in the room (see diagram in Figure 3.2). It also allowed the sirens from emergency vehicles passing at the busy intersection, to enter unpredictably into the consciousness of the classroom participants, occasionally reminding them of the diurnal realities of life in a large city. On entering their room we could see the students seated at moveable desks and chairs which were placed in the same locations in which the fixed furniture previously stood. The teacher's desk which was four times the size of the students' desks and faced theirs was placed in the front of the room at the far corner from the single entrance. Throughout the school day and school year, this was the furniture arrangement. Occasionally students were told to move to designated locations for short term activities, and then were reminded to return to their original places once that activity was completed. The walls of the classroom were decorated by the teacher, with selected student tests being posted. There were small alcoves and a round table in the room which seemed to be used exclusively by the teacher. Spatially and organizationally this was a highly teacher focused classroom; as Figure 3.2 shows all desks faced front and were focused on the teacher space.

A harmonious atmosphere seemed to prevail with infrequent incidents of students being reprimanded. When a late student arrived the lateness was usually ignored as was anyone escorting the child. The student immediately sought to catch up with his/her peers. Throughout the day students were encouraged to participate in the activities planned by the teacher, even toilet time was a class activity. An open bookcase filled with a variety of books was infrequently used by anyone

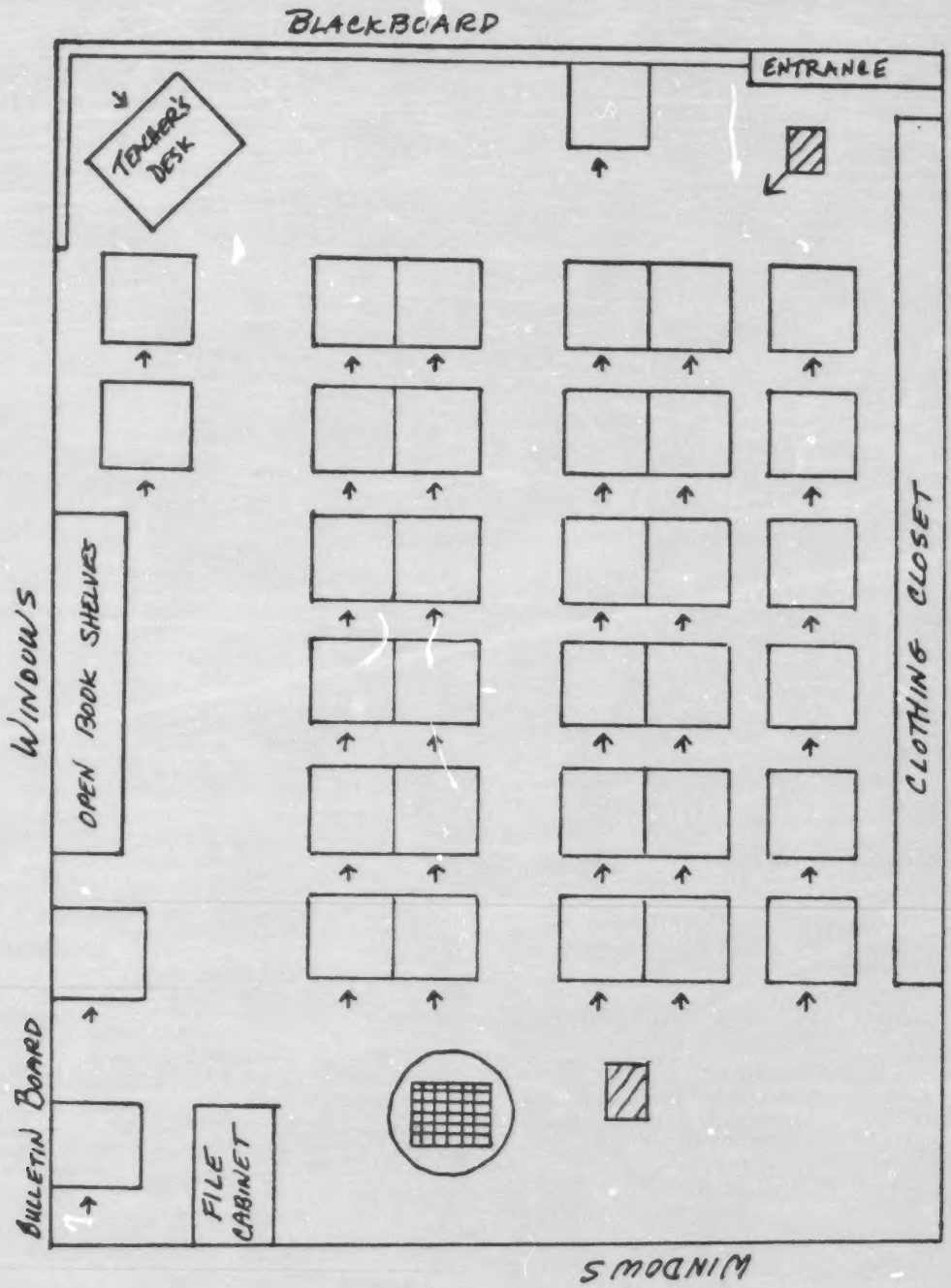


Figure 3.2 Typical Second Grade Classroom Physical Organization

symbolizes individual student desks

direction student's chair faced

betamax
screen splitter
monitor

symbolizes camera focused on a subsection of students in class

symbolizes camera focused on the teacher wherever she moved

but Ms. Two. For most of the day, the students remained in the room in their assigned seats.

It was fairly easy for us to fit into Ms. Two's classroom and her schedule. She always seemed to know what she had scheduled for different segments of the day and proceeded from one subject to the next in the predetermined order noted in her lesson plan book which was omnipresent on her desk, as were the materials she would use to present a lesson. It was always evident that Ms. Two had previously planned her objectives for a given time period and then she implemented that plan. She never appeared to be unprepared for the lesson. In fact, she always knew what she wanted to discuss in a specific time frame and went about her work as she had planned. Ms. Two always knew where she was in the day's plan. The students were accustomed to her organization and worked to keep up with her objectives.

The day was usually organized into approximately four 45 minute segments before lunch and three segments after lunch. Thus, a typical day might include:

Math
Language/Reading - English
Physical Education
Language/Reading - Spanish
Lunch
Science
Music
Social Studies

Ms. Two expected us to videotape in her classroom on our regular visits to the school, and accepted our presence. When she reviewed some of the tapes with us, she seemed proud of her students' class participation. She expressed interest in the increasing English language ability of recently arrived Spanish speaking students and evidenced pride in their progress. Ms. Two's room was explicitly task-oriented and the serious approach to schooling was evident in our visits there.

Ms. Two, who is a native speaker of Spanish, clearly distinguishes lessons which are Spanish and those which are English. English lessons are exclusively English with the teacher addressing the class or

the students participating in lessons. Most of her lessons in both languages used drawings on the blackboard to develop concepts. Occasionally, those students with limited facility in English were given individual assistance in Spanish by Ms. Two to assist understanding in the task assigned to the group. Thus, when the class was copying material from the blackboard into their notebooks during a lesson conducted in English, Ms. Two, noticed that Hector, whose seat was immediately in front of the blackboard, appeared puzzled. She went to his desk, and explained to him quietly in Spanish or English (seemingly dependent on the language of the lesson) what he was to do while she helped him obtain the needed materials. Hector then proceeded to do as all of the other students were doing.

During the lessons to be conducted in Spanish, Ms. Two used a very different approach. She provided almost an interlinear translation into English of her Spanish statements. She encouraged students to respond, particularly in Spanish, but if they were reluctant, she accepted English responses. Thus, her bias towards increasing fluency in English is apparent from our observations and from discussions with her.

3.13 Fifth Grade

Ms. Five taught a fifth grade class. The 30 students assigned to the class called her Miss Five. This room was approximately the same size as the second grade room, but was located in the rear of the building and therefore was far removed from the noises from the street (see diagram in Figure 3.3). In this room, the students' desks and chairs which were moveable were frequently placed in different configurations but the teacher's desk remained throughout the year to the side of the front of the room. Students, although assigned designated locations, acceptably chose other seats providing the change was agreeable to the misplaced student and misbehavior did not ensue between new seat mates.

As student activities changed during the day, seating arrangements changed. The teacher neither monitored the individuals as they moved nor the seats chosen. Students were treated independently in the room, with the presumption that students pursued the teacher assigned

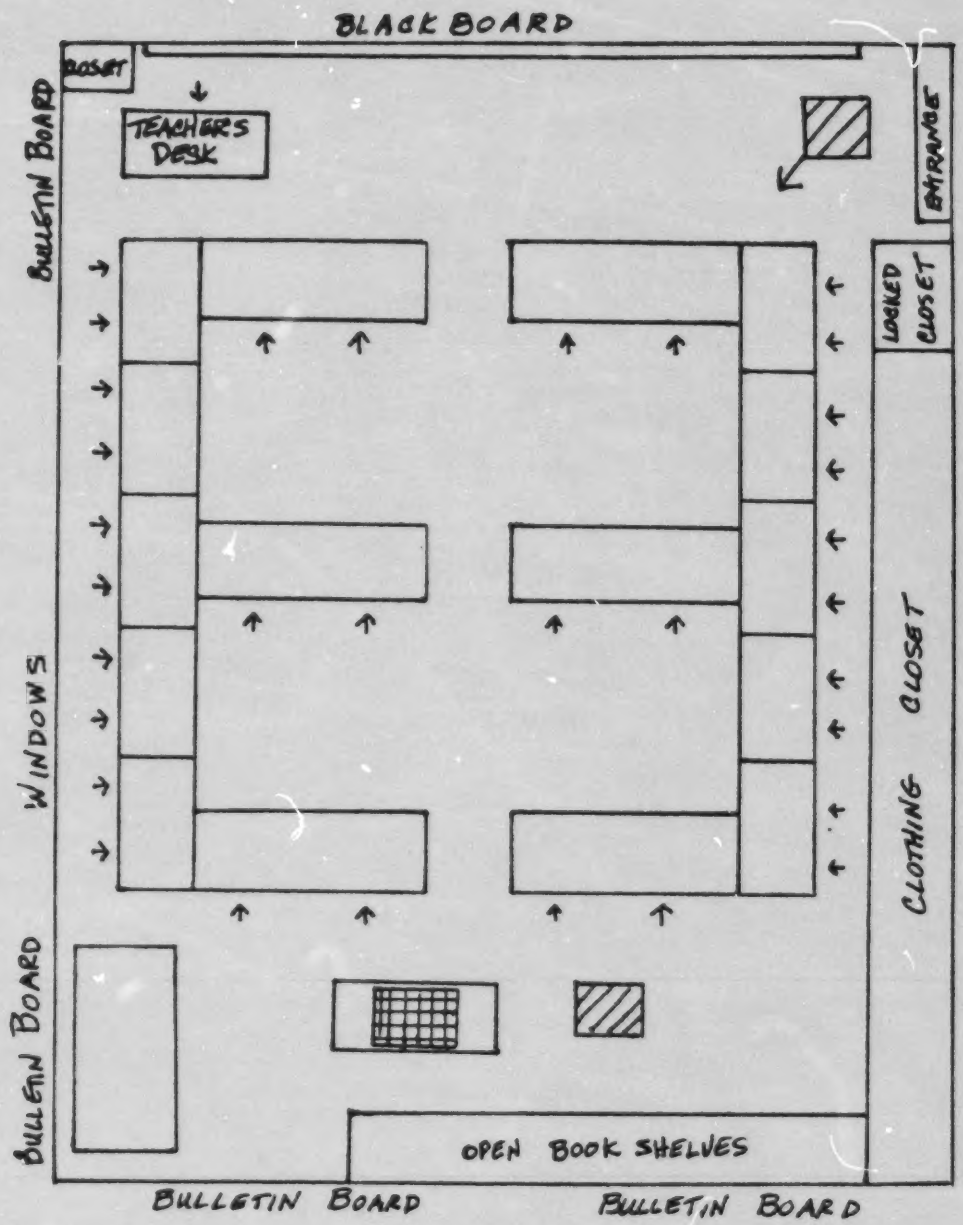


Figure 3.3 Typical Fifth Grade Classroom Physical Organization

symbolizes camera focused on subsection of students in class

symbolizes camera focused on teacher wherever she moved

symbolizes one double student's desk

symbolizes direction student's chair faced

betamax
screen splitter
monitor

activity. For some tasks, this could be accomplished collaboratively, but for some, students were given individual tasks, requiring students to produce unique responses. Many worked in informal student formed groups to complete assignments.

There was no student work displayed on the walls. The room did not appear to be of concern to those who occupied it practically the entire day. The conduct of certain students however, seemed to be the focus of much of the interaction occurring in the classroom. However, behavior was not the only concern here. It took us many months of observation to understand how this group functioned.

The teacher rarely seemed to know what was happening, but the students were able to tell her the subject (S.S., Math, Science) that was designated for a particular time slot. They knew the workbook pages they had completed. Ms. Five seemed continually confused about where they were. There was no evidence that she had any idea of where they were going. But the students seemed to be able to use the getting ready time" to talk about books they were reading with their peers, to leaf through assigned text books, and to complete workbook assignments. Thus, the students knew how to make use of the time during the day. to share ideas and increase their understanding.

Ms. Five, a native New Yorker who has been immersed in a bilingual setting since birth, used text materials extensively in her identification of student activities. Thus, regardless of the language designated for a particular activity, she selected published exercises for the students to complete. There was frequent, informed interaction among the students in completing these assignments. Their collaboration resulted in increasing student understanding of the assignment. The assignments and the class presentations approached most topics very abstractly - even when using a flat representation of the world. Topics of lessons conducted in English paralleled those conducted in Spanish. Thus, there were lessons on tenses; correct usage of articles; and stories in text anthologies.

Since these were not students identified as having limited English ability, English was not a problem. Assistance in understanding Spanish assignments was sought from native and non-native speakers. Since most of these students had received Spanish and English instruction for a

minimum of five years, there were few students in this class who could not be identified as bilingual.

At the project's beginning we established that our videotaping would only occur with the teacher's approval. Ms. Five was absent on several visits, and specifically requested that we not tape on the first day following the winter recess. All of the tapes we collected in her room, as in the others, were collected with her consent. When Ms. Five reviewed some of the tapes with us she was quite concerned at her own photogenic qualities, and was disappointed that the black and white image did not recapture the colors of the clothes she wore. Eventually she commented on the misbehavior of selected students. At times during the taping these students were told to leave the room due to their unacceptable behavior. The diffuse focus in this classroom was troublesome for us initially, but we were able to make sense of it, eventually through our ethnographic approach. We confirmed our understanding by interviewing Ms. Five and the students in the class.

Although there were great differences between classes, there were important similarities which we will discuss.

3.14 Physical Organization of Classrooms

Rooms in which classes are conducted are organized predictably. The classrooms visited were located in a physical setting marked by four walls and a door with blackboards, desks and windows. All three classrooms had many similarities; there was one teacher's desk which was different in size and capacity from the students'. The three teachers (who happened to be female) placed their desks at a corner of the room, two on the left side, when facing the blackboard and one on the right side. The chairs behind the teacher's desk faced the students' desks; the teacher's desk was located in the "front" of the room which implies that the desk was near the blackboard where most of the structured lessons were conducted, and the students faced towards the teacher's desk (even if their seats were positioned at right angles to the teacher's desk). The students' desks were similarly of one kind, but distinct from the teacher's. Students were expected to be seated on their chairs (or occasionally on the floor in the kindergarten) during most of the instructional time whereas teachers could sit on student desk tops, or stand at the blackboard, or walk around the classroom, as well as sit on chairs.

Although the classrooms were physically similar in many respects, they also had striking differences. In one (Ms. K) there were student-constructed mobiles hanging from the ceiling and the students' desks were frequently regrouped for different activities, but most often faced each other in rectangles (Figure 3.1). Another (Ms. Two) had graded student work posted on a bulletin board but student desks, although movable, were arranged as though in fixed rows (Figure 3.2). In the third class (Ms. Five) there were several times during the year when the classroom was reorganized. At the end of the year, student desks were arranged in two long parallel lines facing each other aroung the perimeter of the room, with several desks placed at right angles to the parallel desks (Figure 3.3). A map hanging from the blackboard frame was used often, as were dictionaries stored in open bookshelves in the rear of the room.

We knew when we were in the classrooms, and we "knew" how to act in these places. But within the broad range of possibilities, only through careful observation and analysis could we understand what was expected to happen in these rooms. It is not the physical organization of the classroom that we studied. We focused on the interactive nature of the communication (linguistic, pragmatic, and behavioral) between teacher and students in organizing the classroom for instruction. We looked at three different grade levels in classrooms, which might, for convenience be identified as "traditional" or teacher-centered, recognizing the limitations of such generalizations.

Typically students and teachers meet in classrooms for approximately six hours daily, five days each week. Most studies have reported on isolated activities during this time span. How the activities pursued during the major segments of that time are orchestrated is an issue that has been addressed ethnographically by few, including Florio's kindergarten group (1978); Dorr-Bremme's longitudinal two year study of one teacher with combined classes of kindergarten and first grade students (forthcoming); Griffin and Shuy's (1978) cross-grade study, and Mehan's (1979) mixed class of grades 1-3. We studied three classrooms (Kindergarten, Second Grade and Fifth Grade) in a bilingual school (Spanish/English) to determine the behaviors students display to convey their functional classroom competence or interactional competence.

3.2 Procedures for Data Collection and Analysis

There were multiple stages in the data collection process which will be discussed prior to presenting data analyses approaches.

3.21 Videotape Procedures

As part of the data collection, three classrooms (a kindergarten, second grade and fifth grade class) were visited regularly during the 1980-81 academic year. In the natural setting of the classroom, a sophisticated videotape system was introduced. Two cameras, two shotgun microphones and a screen-splitter were used to record the events. One camera focused on the teacher; the other focused on a representative sample of the students in the classroom. A technician operated the screensplitter. A diagram of the prototypical format is presented in Figure 3.4. This arrangement provided the opportunity for adjusting the images on the screen for the two cameras as appropriate for different activities in the classrooms. Configurations of those most frequently utilized are diagrammed below (Figure 3.5).

The teachers were advised of our anticipated arrival as a professional courtesy. However, they were requested to continue the same procedures employed regularly in the classroom. We taped for approximately one hour on each visit, thereby documenting several lessons and transitions as the classes engaged in their routine activities. Initially, the students and the teachers were very camera conscious, aping for the camera or averting the camera when realizing it was focused on them. After two taping sessions, however, they seemed to become more at ease with our presence. (Some preliminary sessions were planned to provide for this adaptation while different strategies were implemented to determine the most effective approaches. It was during this time that we decided to constantly concentrate on a few students rather than to attempt to record all the students or just the students who were responding to teacher questions. The rejected procedures did not provide a coherent record of the classroom while the adopted procedure did.)

From the lengthy videotaped sessions, systematic patterns emerged in the lessons, thereby supporting the representative nature of these lessons in the teacher's repertoire. Additionally, students seemed to behave without any guise of deceit. Informally, there was never any

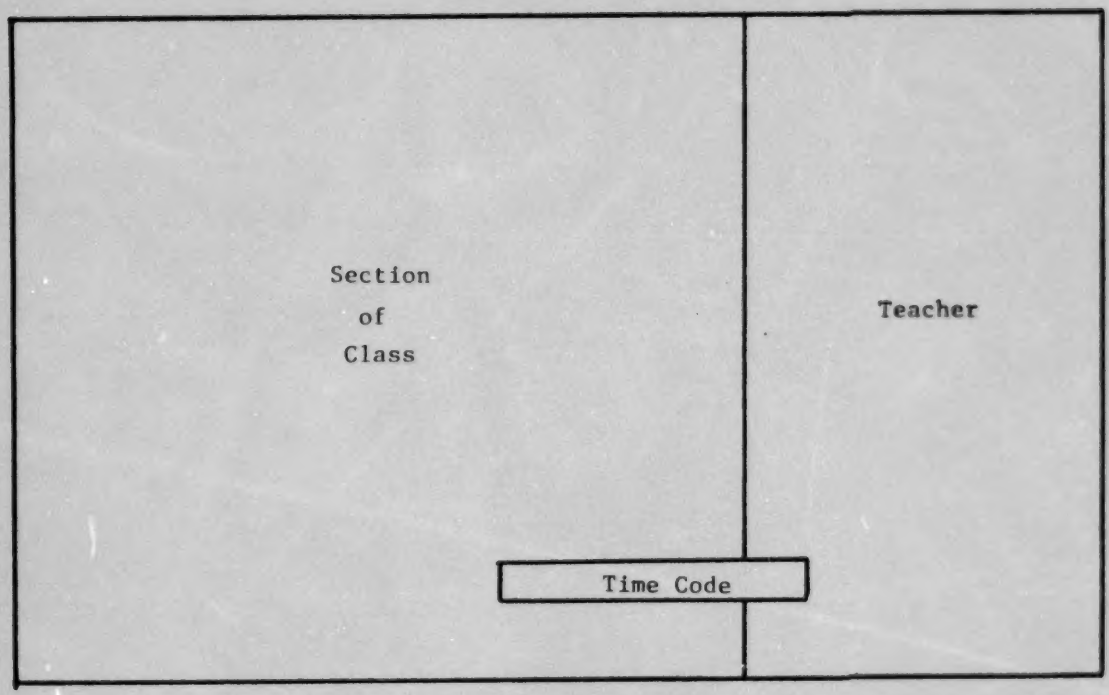


Figure 3.4 Format of Videotaped Record of Filming Session

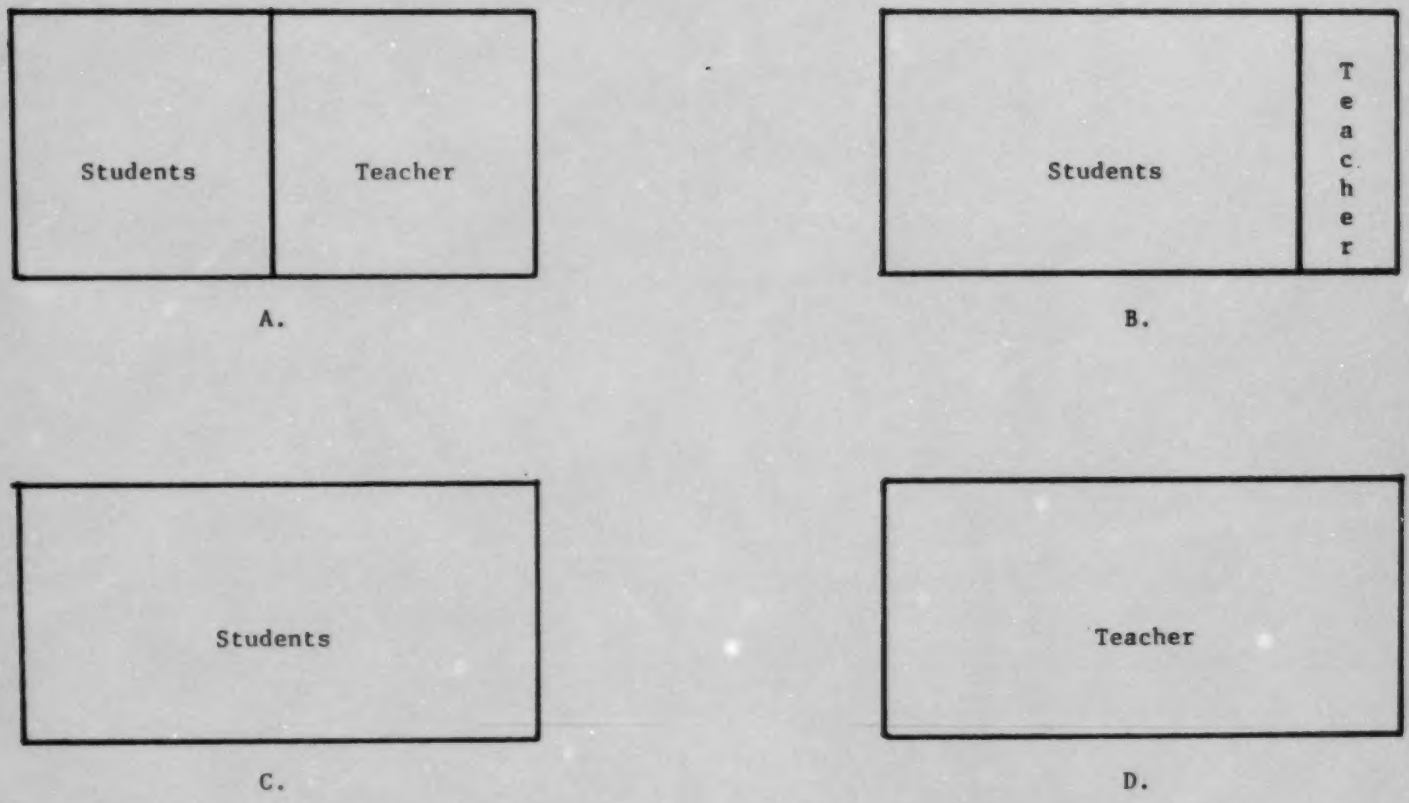


Figure 3.5 Four frequent configurations used with a screensplitter.

implication of staging anything for our visits. Thus, we believe we have representative slices-of-life in three classrooms.

The procedures utilized in the data collection are consistent with ethnographic research in which an investigation is mounted in a natural setting providing the opportunity to study how students and teachers actually function in real classrooms. The total context of the interaction is observed without any intent to change the normal functioning of the group.

3.22 Written Transcripts

Ochs (1979) presents a persuasive argument for the consistency between research questions and transcribed data. In part, her caveats guided the development of the approaches utilized in transcribing the data. However, we recognized the difference between transcripts and primary data, and do not equate transcripts with the data. The processes we used in generating the transcripts are presented below.

First, all of the tapes were summarized. These were written by the research assistant immediately after the taping was completed. A general overview of the topics studied and the procedures utilized were noted. These summaries helped to refresh our memories of what the lesson was about.

A second level of recording, logging, followed. The logs provided counter numbers for the different segments of the lessons which were also identified. Since each visit included taping for approximately one hour in each classroom, it was not unusual for at least two different "lessons" to be included in that time segment. Thus the logs indicate important events identified in team discussions, as potentially significant activities including transitions to new lessons and direct instructions by the teacher for students to accomplish designated tasks.

A third level of recording was the transcription of the words produced and related actions of teachers and students. This was a slow, tedious procedure. It was essential that each word be recorded correctly. Recognizing the rapidity with which we talk, the different dialects represented among the participants, the frequency of multiple simultaneous speakers in a classroom, and the audio limitations of classrooms, should suggest some of the difficulties inherent in the

process. (It is amazing to reflect on the mind's capacity to constantly cope with this quantity of data). This transcription process required at least two individuals to operate the videotape equipment which needs constant stopping and rewinding to rehear the noises which slowly emerge as distinct messages. The verification of one's hearing by others validates the content of the transcripts and results in generally reliable verbal transcripts of the tapes.

In transcribing one three-minute sequence in a class lesson, one hour was taken by four researchers working in concert. Needless to say, this is a time-consuming, exhausting process. However, it is also essential for data analysis. Since this project is concerned with the subtlest interactions between teacher and student, the transcription process provided one column for the teacher's behavior and one for the students' behavior.

After the words were noted for the teacher and the students in the appropriate columns (see form in Figure 3.7), the additional notations were added. These included a verbal description of the teacher's and the students' actions in parentheses and notations of time when there were not verbal messages. An example of the latter appears in (1) below.

(1) I don't think you heard me.... You're still coloring.

The dots denote the number of seconds which elapsed between words. These transcripts then served in part for the intensive examination of the data described in the next section. The care we took in creating the transcripts notwithstanding. There were severe limitations of looking exclusively at the transcripts, which we discussed in Section 3.25.

3.23 Field Notes

During the videotaping, a research assistant sat near the students who were on camera to write field notes concerning information not accessible from the filmed report such as the content of student notebook entries and other indications of their responses to the lesson as well as all work placed on the blackboard

As an adjunct to the notes recorded during the session, there were notes and reactions derived from all those observing during the filming which formed a summary of the lesson. The field notes, the summary statements and the interview records were utilized in analyzing the videotaped data.

3.24 Interviews

There were informal interviews with the teachers throughout the entire project. Records of these included audiotaping as well as handwritten notes. These interviews helped us understand the teachers' perspective in these activities while maintaining a good working relationship among the volunteer participants.

After the videotaping was completed, we formally interviewed and audiotaped students in each of the classes to obtain the students' perspectives on classroom activities. In addition, throughout the year of videotaping, we obtained information informally from the students as to their interpretation of the nature of specific activities.

All of these sources provided the data for our analysis of classroom competence.

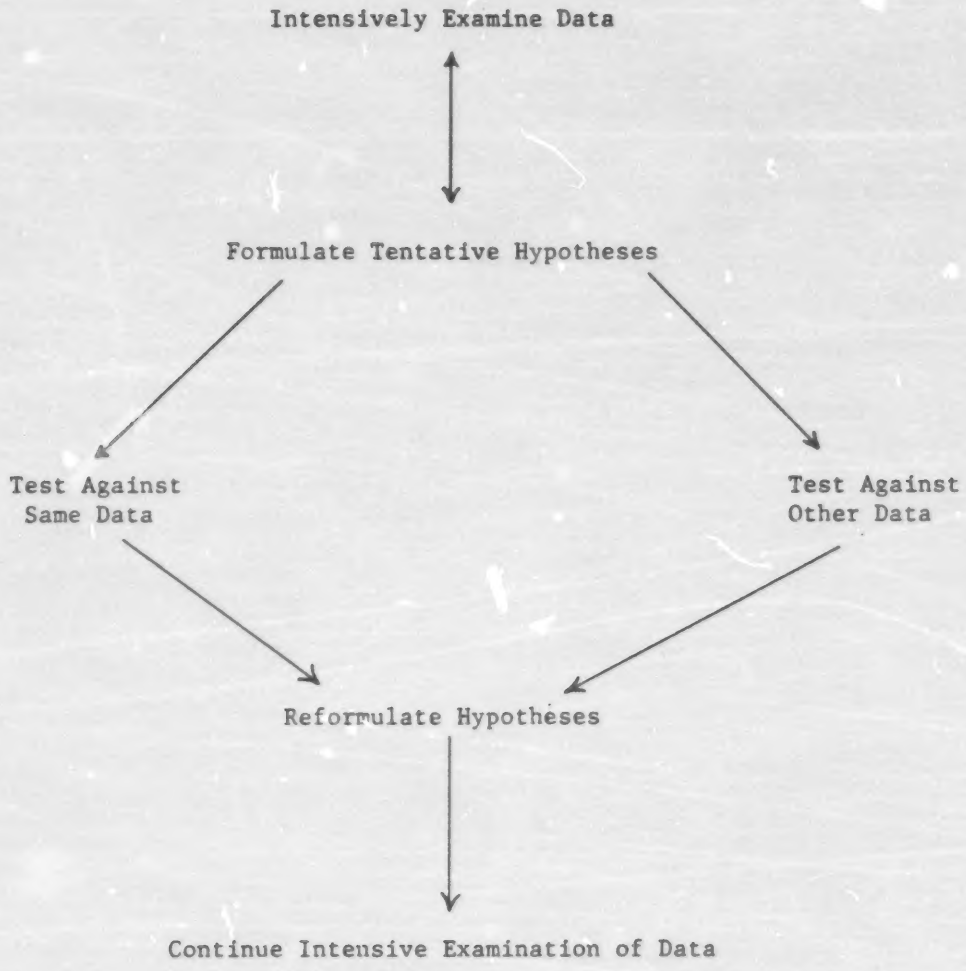


Figure 3.6 A schematic representation of the processes involved in generating hypotheses in descriptive studies.

3.25 Data Analysis

3.251 Method of Data Analysis. One of the delights in analyzing the data in a descriptive study is that despite the related literature, there are no preexisting schemas or categories which one can be sure, a priori, will fit. Rather, the intent of this approach is to generate hypotheses based on an intensive examination of the data. A schematic representation of the process is presented in Figure 3.6.

This process is initiated with an intensive examination of the data which results in the identification of patterns of behavior. These patterns may include the teacher's procedures in changing from one topic or subject to another or the teacher's procedures in establishing an acceptable classroom environment. Based on these patterns, we formulated tentative hypotheses. Then we returned to the data especially in the videotaped record which generated the hypothesis and tested the hypothesis based on that data. If the hypothesis still seemed appropriate, it was tested against new data. Based on these additional tests, the hypothesis was reformulated. There had to be consensus among the researchers as to the inferences drawn and intents inferred. The consensually reached hypotheses resulted in the findings of the study.

In order to arrive at our tentative conclusions and hypotheses, we utilized three levels of analysis. These were: a linguistic analysis (identification of teacher directives); an interactional analysis (identification of turn-taking procedures) and an ethnographic analysis (identification of lessons and episodes comprising a lesson by noting patterns of interactional behaviors and language which distinguished episodes within a lesson). A sequential description of analytical procedures is presented in Appendix A.

3.2511 Linguistic Analysis. We utilized the verbal transcripts for identifying teacher directives. In designing the transcript record, we focused on the verbal interaction between the teacher and the students. Therefore, we allocated two columns, one for the teacher and one for the students. This bi-columnar approach is consistent with the audio tracks, one of which was served by a shot gun microphone facing the students. Similarly, the visual images were provided by two distinct sources and were recorded on the videotape utilizing a screen splitter. The resulting screen display is presented diagram-

Figure 3.7 Typical Verbal Transcript of Transition Between Activities

Teacher Behavior	Counter Number*	Student Behavior
(Teacher erases board and is still dealing with previous topic)	037	
please mark the pages	045	
put your book away		
	047	(Lawrence closes book)
(Teacher goes to her desk, puts down the math book and returns to the front of the room)	048	
	048.5	(Lawrence puts book in desk) (Ronald and Omar confer)
All right	052	
let's count to five		
put our things away		
and take out your English notebook.	053.5	
one . . .	054	(Students return rulers to teacher)
	054.5	(Ronald closes math book Lawrence is taking out English notebook)
two . . .	055	
three.	056	(One student gets out of seat to return crayons)
If you have my crayons.		
bring them back . . .		(Students get out of seats to return crayons)
four . . .	058	
	060	(Lawrence is opening notebook)
Oh	061.5	
Janet		
I don't think you heard me . . .		
You're still coloring . . .		
and that's homework assignment.		
	063	(Janet closes math book)
you don't have to do that now . . .	064	
five . . .	065	
Very few people are ready . . .	066	
Tele is.		
Ruben is . . .		
	067.5	(Omar closes math book)
Rhonda is	068	
. . . . .		
	070	(Omar puts book in desk)
	072	(Ronald has English book on desk)
	072.5	(Omar takes out English book and opens it)
Um, all right . . .	074.5	(Karen takes out English notebook)
Open your English notebook and let's review two things that we already know	075	

Note: each dot (...) represents one second in time.

*Counter numbers may be translated in time by a 1:14 relationship i.e., there are 14 numbers per minute of transcribed time.

matically in Figures 3.4 and 3.5. These taped records and the field notes provided the bases for the transcription process. In particular, utterances which were responded to were carefully recorded and where possible, an indicated of the producer was noted. In transcribing the data, the words were noted for the teacher and the students in the appropriate columns (see form in Figure 3.7). In addition, a verbal description of the teacher's and the students' actions were placed in parentheses and notations of time passing when there were no verbal messages. An example appears in (2).

(2) I don't think you heard me...You're still coloring.
(Teacher looks at student, student looks at paper.)

[The dots denote the number of seconds which elapsed between words.]

These transcripts then served as the basis for the intensive examination of the data described in the next section. (A discussion of some additional issues in transcribing is presented in Appendix B).

However, we found on careful analysis of the teacher's utterances that all served pragmatically as directives thus all utterances were directives. This finding did not illuminate the basis on which students would interpret classroom events. Another problem using this analysis in isolation, was the need for an understanding of the total context in interpreting the intent of given remarks. Thus, when the teacher said, "Open your English notebooks," she meant three things should be apparent:

1. the only notebook on your desk should be your English notebook;
2. the notebook should be opened to a clean page; and
3. the clean page should follow the last filled page.

Thus, the explicitness of the directive was not clear, because the determination of explicitness was based on knowledge of each listener, a variable which could not be accounted for in this linguistic analysis.

In addition, since we could not distinguish directives from other utterances, since all of the teacher's utterances seemed to carry directive force, the linguistic analysis in isolation did not prove productive for the questions we were trying to answer, assessing the students' classroom functional competence.

3.2512 Interactional Analysis. Our next level of analysis was that of the interactions between the teacher and the student. Based on previous research, we initially sought to identify the turn-taking procedures operant during the videotaped activities. This was a productive venture. We were able to distinguish Teacher Imposed turns from Student Solicited Turns. We were also able to study the problem of utterances identified as "initiations" prototypically, i.e. the first component in three-part interchanges. We noted lengthier interchanges, and interchanges which were briefer; those which were influenced by non-interactants (i.e. students calling out in the course of an on-going interchange); and major differences in the types of interchanges occurring during lessons. This level of analysis caused us to look at the entire lesson and note the relationship between these different interactions observed during the interactional analysis and other events in the lesson.

3.2513 Ethnographic Analysis. This analysis was pursued in a totally different manner. We viewed tapes without an audible sound track to note the different behaviors occurring during distinct episodes within a lesson. We sought multiple such episodes to note commonalities across instances. These included the physical orientation and form of participant joint movements, and classroom organizations. In addition, the verbal transcripts were studied as they represented differential opportunities for turn-taking. The participants' displays of conjoint activity during these episodes were considered aspects of classroom functional competence. Thus, the interaction between these two levels of analysis (i.e. the interactional level of turns-at-talk and the ethnographic analysis of episodes in lessons) serves to confirm the analysis at each level.

3.252 Determining a Valid Level of Analysis

Our initial intent was to utilize a linguistic analysis to identify utterances which served as classroom directives. Analysis of those utterances produced by the teacher in directing classroom activities and responded to by the students provided a linguistic perspective on classroom utterances. But we found these somewhat problematic since the utterances did not necessarily explicitly identify the information that all classroom participants utilized in understanding

classroom activities. We encountered three major obstacles in utilizing an exclusively linguistic analysis of our data.

First, our tentative distinction between explicit and implicit directives derived from previous theories and studies (see Figure 2.1) seemed to be finally impossible to justify in determining a group's knowledge in given situations. Thus a teacher's comment such as "Open your books" may be perceived as explicit if each child had only one book to open. However, once there are choices among books this may become a problem for the student and/or the analyst. Also, the teacher's intent in such an utterance would not usually refer to a random opening, but rather opening a specific book to a particular section or page. Thus, depending on one's knowledge of the situation and a variety of other contextual clues, the full meaning of the utterance might be considered explicit or implicit.

Secondly, as noted in Speech Act theory, utterances have multiple functions. Thus, attempting to identify a single function for each utterance utilizing Dore's (1978) analysis of conversation acts did not provide a participant's perspective on the scene or the meanings conveyed in that situation. Dore and McDermott (1982) provide a persuasive analysis on this problem. Further, because of the power relations in the classroom, all teacher utterances may be interpreted as having directive force, another issue related to the multiple function of utterances.

Thirdly, when we attempted to utilize transcripts which recorded every audible utterance on the videotapes which had multiple audio channels, we realized we needed a visual transcript as well. The words in isolation had little meaning when compared with the dynamic interchange evident in the videotapes. The limited amount of information obtained in the verbal transcripts therefore required us to utilize a more holistic approach for analyzing the classroom interactions.

Related to this problem of determining the meaning of the decontextualized utterances, we serendipitously made an exciting observation. When reviewing videotapes with some of the classroom participants we played the tapes in several different formats, namely: with sound and picture; with sound only; and with picture only. It was instructive to us that viewing with either sound and picture or, surprisingly, with

picture alone, resulted in a rapid consensus on what was happening. Using only the sound, there was no such agreement. In fact, we frequently head "I don't know" when we requested an explanation.

This finding was most important for us in determining the validity of a purely linguistic analysis. It also suggested the subjective nature of the transcripts in that, through our observation of the interaction we focused on specific events, particularly the student-teacher interchanges. Thus, we selectively identified the noises to be transcribed and excluded those occurring in the classroom which did not contribute to these interactions. Although this is probably the way we deal with the world in general i.e., by filtering out the supposed irrelevant noises - filtering is only possible when one determines a focus. Without a focus, all noises have an equal claim for attention. Thus, when the participants only heard the audio track of the classroom interaction, they did not have a concept of the scene and therefore could not filter out irrelevant noises. In fact, they could not determine what was relevant. This finding provided us with compelling evidence for seeking an alternate analytical approach. In order to obtain the participant's perspectives we needed to become part of the scene with them to understand how they were making sense of what was happening. This is typically the approach of ethnographers who adopt a methodology familiar in anthropological studies. By immersing ourselves in three different but related cultures, we were able to organize perceptions of what constituted an activity in a classroom much as the participants did. Through this approach we could identify elements contributing to the concept of classroom functional competence, alternatively labelled interactional competence (Bremme, forthcoming) and acceptable social behavior (Shuy and Staton, 1981).

This focus brought us to view classrooms as Mehan (1979) suggests: they are small societies or communities. The social structures of these organizations are interactional accomplishments according to Cicourel (1974); Sacks, Schegloff and Jefferson (1974), and Scheflen (1973) and Birdwhistell (1970). The occurrence of the conjoint organization of classroom events evidenced by the coordinated, synchronous movements and behavior changes was the focus of our study. We understood that social behavior is rule-governed, rhythmical, patterned,

cooperative and recurrent. What we didn't know was how this organization was accomplished in classrooms. We believed that functional classroom behavior was consonant with this organizational structure. Our observations brought us to an interpretation arrived at through prospective, retrospective and reflective analysis of the interplay between language and movement in accomplishing these classroom/communicative events based on Kendon (1970), Erickson (1979), Scheflen (1979) and McDermott (1974).

An Ethnographic Approach

Since the study was a descriptive, exploratory one, approaches which enable us to generate hypotheses based on intensive study were sought. We used an interactional analysis. That is, we looked at the total context of the classroom interaction to determine the functioning of the classroom participants and the bases on which those functions were operating. Thus, we observed the movement of the people, the materials accompanying these events and the language being used. We noted how each interacts with the other in establishing a context. To accomplish this, we identified patterns of behavior across contexts (such as lessons, grades, and teachers). The patterns identified are some of the major events which constituted activities in the classrooms studied. Principally, we focused on the nature of classroom lessons as interactions between students and teachers.

Mehan (1979) provides an informative characterization of effective participation in classroom lessons, stating that it

> involves the integration of interactional skills and academic knowledge. Students have a repertoire of academic information and social knowledge available to them. To display this knowledge when the teacher initiates action, they must be able to choose a reply from their repertoire that is appropriate for the occasion. When the teacher is allocating the floor to students, they must recognize the turn-allocation procedure that is operating and provide the behavior that is consistent with those normative expectations. Once students have gained access to the floor, they must synchronize the appropriate form of their reply with the correct content (p. 139).

Mehan broadly conceptualizes these. In particular, Mehan, although mentioning the need to observe movements in the class seems to focus on the language almost to the exclusion of the context. Mehan

states (1979),

> Effective participation in classroom lessons involves distinguishing between directive, informative, and elicitation speech acts (italics added) and providing the proper replies (reactions, acknowledgements, and responses) on the right occasion in order to produce symmetry between initiation and reply acts (p. 134).

Dore and McDermott (1982), Goffman (1976) and Hymes (1972) suggest that speech acts may be interpreted differently in different situations, indicating the limitations of a purely linguistic level of interpretation. Ethnographic research intends to analyze the "total context," of which speech acts are only one part. In discussing an ethnographic study of a halfway house for ex-offenders, Wieder (1974) drawing on Zimmerman's work, suggests that language is used reflexively. By this he explains two uses for public use of language:

1. It is used for such purposes as: giving and receiving instructions which are imbedded in the context; and seeing and describing a social order, therefore language provides a stable sense to behavior.
2. It is used to limit the range of meanings possible in an event because language is used trans-situationally and therefore the meanings must be limited to a specific situation.

Vygotsky and Britton among others, would suggest many other uses including introspection. These characteristics suggest the need for a more context based analysis, as that of an ethnography.

Following Dore and McDermott (1982), McDermott (1974;1977), McDermott et al. (1978) and Shultz, Florio and Erickson (in press), we identify rules based on an analysis of the interaction of language and movement. Thus a contextual analysis provides the data informing this study, utilizing an ethnographic approach to understand the rules of the situation. (See also Brause, Mayher and Bruno, 1982).

Ethnographic Research

The intention in conducting an ethnographic study is to determine the rules used by the individuals in that society/culture to conduct their social interactions. This approach has recently been borrowed from anthropologists by educational researchers to understand how principals (Drebeen, 1968) and classrooms (Brause and Mayher, 1982; Gilmore and Glatthorn, in press; Griffin and Shuy, 1978; and Mehan, 1979) function. The intent has been to determine in

practice, rather than theoretically, the rule knowledge needed by participants to function, thereby obtaining baseline data for teachers and other educators to interpret interactions and facilitate participation through conscious awareness of the rules. It is the concerted, joint focus of social interactions which serve as the data base for ethnographic studies. Thus, by definition, an ethnography cannot be a study of one person.

An ethnography, to be considered adequate according to Frake (1964) is "evaluated by the ability of a stranger to the culture [e.g. the classroom] (who may be an ethnographer) to use the ethnography's statements as instructions for appropriately anticipating the scenes of the society" (p. 112). Based on the guidelines provided in recent treatises, (McDermott, Gospodinoff and Aron, 1978; Mehan, 1979; Wolcott, 1975), it is possible to characterize ethnographic research as including:

1. a commitment to understanding and conveying how it is to "walk in someone else's shoes" and tell it like it is (Wolcott, p. 113).
2. attention to the total context in which people and events occur, rather than isolating arbitrary aspects - thereby studying the means by which people organize themselves into interacting social systems.
3. a recognition of the constant modifications resulting from the dynamic processes which are inherent in a culture, thus the illusiveness of exact duplication but recognizing the commonalities across similar instances.
4. the retrievability of data for repeated observations, re-viewing, potentially revealed by different interpretations of the data.
5. analysis of data on multiple levels (e.g. single linguistic utterances; speech act analysis; pragmatic analysis; behavioral analysis; interactional analysis) with the levels independently and interactively supporting and contributing to the interpretation.
6. convergence between researcher's and participants' perspectives, sometimes through triangulation involving, for example the teacher, the student and the researcher in interpreting the meaning of events. McDermott, et al. suggest, "Until it is possible to understand the members' behavior in the same way that they do, whether they can articulate that understanding or not, it will not be possible to present an adequate ethnographic description." (1978)

In conducting an ethnographic study, multiple sources for data are sought, including, but not limited to: videotaped interactions; field notes; interviews; and journals. (N.B. Ethnographic research is labelled action research by some, e.g. Eliot 1981: "Action research does not prescribe rules governing ways teachers enable the development of understanding in students. But it can give general guidance in the form of hypotheses to teachers who wish to develop their understanding of the particular situation in which they teach", p. 321). Regardless of the terms, the importance of this methodology for informing our data analysis is the issue.

3.26 Summary

We videotaped approximately 60 hours of classroom activities in three classrooms during the 1980-81 academic year. Twice monthly, each classroom was visited to collect data representative of the activities included in the curriculum of classes designated as Kindergarten, Second Grade and Fifth Grade. Since the school program was a bilingual one (i.e. students were either enrolled in the Spanish-English or the French-English program), we selected to study the Spanish-English classes at three different grade levels.

We intensively studied selected tapes, finding patterns which appeared across lessons and languages. We characterized the nature of lessons as particularly identifiable by its joint focus of attention among participants. Both the language and the physical displays foster this joint, cooperative, interactive accomplishment of a lesson.

We present data that support this analysis based on microanalysis of two lessons per grade level, modified microanalysis of ten additional lessons per grade level and macroanalysis of all lessons (see Figure 3.8).Thus we present generalizations across lessons, grade groups and language. When there are differences among the groups studied, these are noted as well.

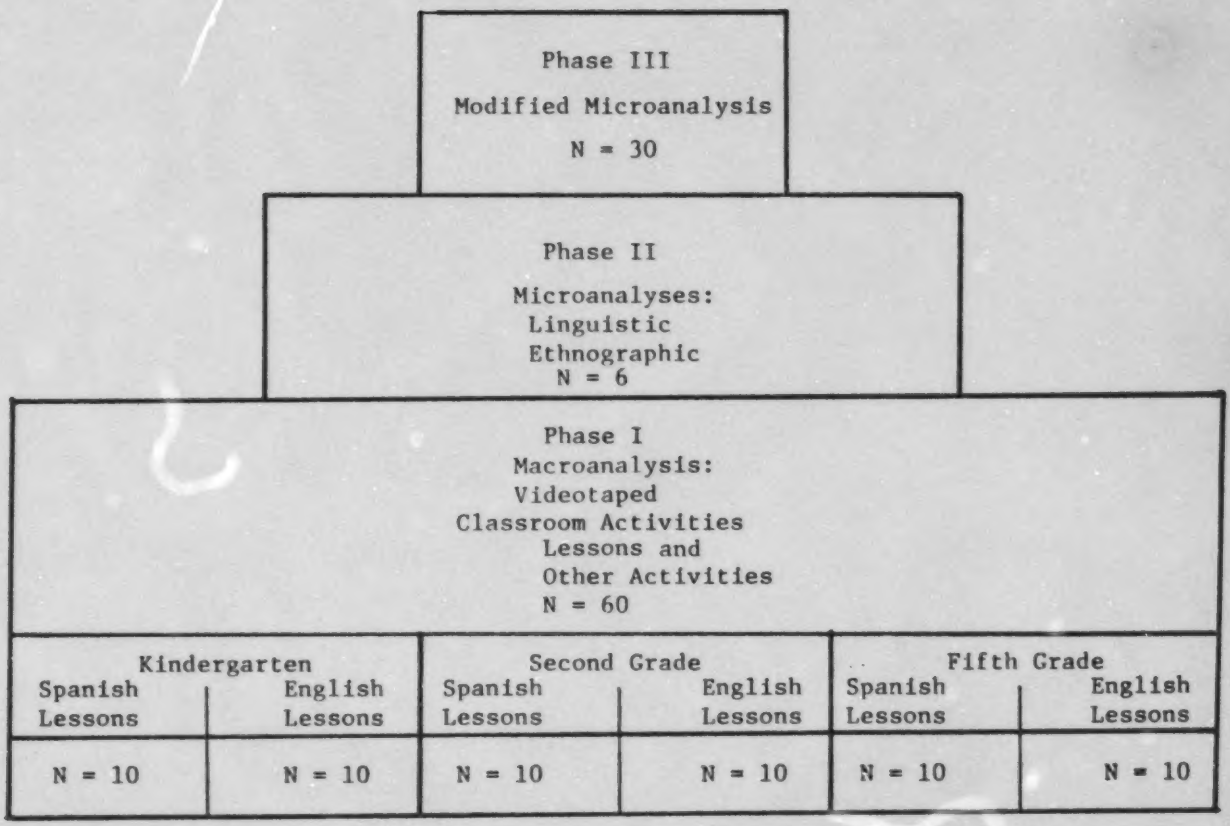


Figure 3.8 Study Phases and Procedures

4.0 Findings

4.1 Introduction

Students display classroom competence by participating in the negotiation of classroom events such as: turn-taking; achieving lessons; and moving from one activity to another. Differences in student participation are particularly evident in bilingual settings where students display behaviors related in part to their language fluencies which may influence the quantity and quality of their participation in specific classroom events. Individual students, across language contexts, interact differently, thereby differentially contributing to the achievement of lessons. Through a holistic, interactional analysis, it is possible to understand the nature of classrooms and the nature of classroom competence. The implications for teachers and teacher educators are far reaching.

4.2 Classroom Organization

Based on previous studies, particularly Griffin and Shuy (1978); McDermott (1974); and Mehan (1979), we focused our attention on classroom lessons. However, since our data collection procedures involved the total range of activities occurring during a one-hour time span throughout the school year, we were able to recognize the large amount of time which could not be categorized as lesson time, but rather as "Getting Ready" time. Across classrooms and activities there were differences, but we want to emphasize the finding that lessons only comprise part of the school day, yet that is what research has focused on, and interestingly, that is what students and teachers generally discuss when asked, "What did you do in school today?"

For these reasons, therefore, we studied "lessons" as they informed our understanding of the competence required of students in achieving lessons. Three major issues emerged from our analysis: Negotiation of Activities (Section 4.3); Characterization of Episodes in a Classroom (Section 4.4) and Organization of Interactions During a Lesson (Section 4.5). We will first present an overview, and then discuss concrete instances which informed our analysis and their relationship to our concern for classroom communicative competence.

4.3 Negotiation of Activities Through a Joint Focus

Classrooms represent one case of social interactions. As is true of all social interactions, there are implicit rules which are followed, responsibilities required, and joint focuses identified. The implicit assumptions which are useful in organizing a classroom situation include:

- There is one teacher and many students.
- There is one large teacher's desk and many smaller students' desks.
- The teacher may sit or stand, but the students sit.
- Students' desks face the teacher's desk.

However, as pervasive as these may appear, they are not immutable. Rather, they are dynamic, negotiated events, constantly subject to revision. On one day, students may enter a classroom and find five teachers, on another day, none; a third day, two aides and a teacher. Yet, they will still identify the room as a classroom, and when there are teachers, respond to the multitude as they would to each individually. Similarly, students generally sit, but there are times at which they stand, and move about the room. Sometimes, these will be ignored, sometimes commended, and sometimes negatively sanctioned. The issue is not so much the isolated act of sitting, as the total context of the organization and social interaction occurring at a given instant.

Thus, the rules merely serve as broad guidelines.

One must be sensitive not only to the micro-rules (such as, Don't talk unless called on) but to the macrocosm in which these rules are operating, and accommodating to that new environment. Their actual operationalization is totally dependent on the total context which includes, among others; the teacher; the students; the furniture; and the activity. Thus it is through a joint or common focus of attention that the context can be identified and changed.

In order to orchestrate all of these components simultaneously, thereby creating mellifluous music, there must be a joint focus by all on one objective and a common understanding of the current "scene". To obtain this joint focus, many strategies are used, but the basic one is negotiation. In a very real sense, to have a lesson or any other social interaction, the participants negotiate the rules and

their responsibilities through this joint focus which is visually apparent in synchronous movements by participants.

Teachers frequently attempt to initiate an activity, as for example when the intent is to change subjects to be studied. The use of the term "attempts" is deliberate as it seems that there is a negotiation process involved throughout the interaction wherein the teacher suggests the next move, but must respond to the student reaction to this move. It is not the case that there is a stimulus-reponse type behavior between teacher language and student behavior. Rather, the students respond differently, and the teacher negotiates student accommodation to her directives.

In other situations the student may create a situation, and negotiate an opportunity for a turn-at-talk (with the cooperation of the teacher and peers).

4.31 Linguistic Component.

The language the teacher uses to obtain compliance with her directives may superficially be identified as explicit or implicit (see Figure 2.1). However, although the directive in (3) may be analyzed as linguistically explicit according to Figure 2.1, this identification might be more subjective than appears at first glance.

(3) O.K. Put your books away. Let's put away our things and take out our English notebooks.

For students to follow this directive phrased in terms consistent with the linguistic literature on directives, they must understand many things including that it is a request for action; and what constitutes "things." Pens, pencils, books, rulers, crayons, sweaters, lunch passes, could all be included. But the teacher seems only to be concerned with math workbooks, crayons and pencils. To interpret correctly, students were observed glancing at their peers to determine precisely what was expected. They seem to use a combination of strategies including "majority rules" with additional weight being granted to students who usually are "right".

4.32 Other Cues

Through other cues, also, the teacher is guiding the transition from one activity to another, by modelling her own change of gears, i.e., erasing the board, returning her book to her desk, positioning

herself in the front of the room. The alert student (as Lawrence is an example) identifies the transition early, almost without the teacher's statement. Others wait for the pacing and more. Recognizing the differential pacing of each student, the teacher identifies the beginning of the new activity (and thus retrospectively the completion of the previous activity) when observing an apparent consensus by approximately 90% of the students. This consensus is evidenced by many acts including physical orientation to the teacher's position, utilization of designated materials, and responding to teacher solicitation. Teacher stares and other eye contact strategies also serve in negotiation.

4.33 Transitions

The systematic nature of activities may be seen in the classroom organization when changing from one topic to another or from one activity to another; these changes are frequently called transitions (Cahir, 1979; 1981). As an organizer of the classroom, the teacher establishes transitions to new activities, and establishes acceptable behavior patterns, but they must be established through joint consensus. The students must agree to abide by the teacher's rules - while the teacher modifies these rules to accommodate idiosyncracies of events and participants.

What is apparent across teachers and topics is that there is a statement identifying the new topic to be discussed. In some classes this statement is an indication of the end of the transition. In others, this statement is just one of several attempts to reorganize for instruction. Instances include (4), (5), (6), and (7).

(4) Open your English notebooks and let's review two things that we already know so that we can learn a new thing today. Who remembers what a synonym is?

(5) Now we're gonna say some rhymes. Listen and tell me which words rhyme: Come and play with me today.

(6) O.K. Who can tell me what we've been talking about in math this week. Let's see, who remembers?

(7) O.K. We will begin in a few minutes...(24 seconds later). O.K., let's begin now (20 seconds later), O.K. let's do page 15 now (2 minutes and 16 seconds later), O.K. number 1, read it and discuss it now, Jennifer.

In instances (4) and (5), there was no delay. In (6) there was a slight delay. In (7) there was a considerable gap between the

teacher's pronouncement and the actual beginning, clearly illustrating the negotiation in process. These time differences reflect differences in teaching styles and classroom autonomy. The similarities help to characterize these social events as classroom interactions.

4.34 Pacing as a Negotiated Process.

In transitions teachers utilize techniques which also are pervasive in the lesson. E.g., they pace their activities, but then modify their statements that the students will be ready for English when they say the number 5, by verbalizing the fact in (8).

(8) Very few people are ready.

while still providing time for those who are not, allowing them to continue their process of moving from one activity to another. They provide examples of students who are ready, subtly applying peer rivalry for teacher notice of their acceptable behavior, while also providing models for those unclear as to what "being ready" implies behaviorally as in (9).

(9) Tele is. Ruben is. Rhonda is.

While they are calling the names of students who are ready, the teachers are also surveying the class, and seemingly attempting to commend all of those fulfilling the instruction to put away their math materials and take out their English notebooks.

Those students who followed as the teacher requested were rewarded with a smile, a nod, a verbal commendation, or none of these. Those who did not, received stares, head shakes, and verbal reprimands, or none of these. The time initially allotted to the transition (counting to 5) was not immutable. In fact, early in the counting, numbers were produced at more frequent intervals than later numbers, perhaps reflecting the teacher's recognition that the students needed more time than she originally projected as necessary. Thus, this changed rhythm of the pacing reflects the interaction between the teacher's initial statement and the student behaviors in fulfilling the teacher's request. Thus, the teacher modified her request based on students' responses.

4.35 Teacher Monitoring

The teacher monitors student activities in many ways including the length of time allotted to activities during the lesson as discussed

previously and listed in (10) when pacing the whole class. In addition, during the discussions, pacing is evident as exemplified in (11).

(10) Let's count to five. Put our things away and take out your English notebooks. One...Two...Three...Four... Five.

(11) Give him a chance to think of the answer.

Teachers also pace activities by using the blackboard to record their representation of the "class" understanding of concepts, thereby summarizing preceding discussions and moving the discussion beyond that point.

Students similarly, but more covertly monitor peer activities. The physical organization of most student desks encourages this. (The students who frequently can utilize the most assistance interestingly, are placed closest to the teacher, where they receive the fewest cues as to peer progress, e.g. see Figure 3.2).

4.36 Tracking

The teacher uses another device which we called "tracking". This includes counting, and calling the names of students who have completed the designated action. As an indication for the rest of the class, she identifies one student, Janet, who has not yet started to move from the previous activity thus indicating that she is aware of Janet's actions (i.e., unacceptable actions) and suggests that this is neither acceptable for Janet, nor for anyone else. The public nature of the teacher's presentation of this statement suggests the universal application of the information. The establishment of consensus regarding the intent of a teacher's directives, in this instance, establishing the transition from one activity to another, is a negotiated process. Teachers may be viewed as the persons accountable to students, administrators, colleagues, parents and themselves for organizing classrooms. They may establish major parameters of acceptable group classroom functioning. Students work within those parameters but the range of acceptable behaviors possible is negotiated by the students, some of whom try to obtain different (greater or lesser) degrees of autonomy within the classroom structure. Teachers and students negotiate the exact organization of those structures. Modifications result from these negotiations. The ultimate result may be neither precisely as the

student sought it to be, nor precisely as the teacher sought it to be, but rather a product of their interaction or a transaction. This process occurred in all classrooms visited. The teachers and the students used multiple means to accomplish these activities. The interactive nature of student-teacher negotiation, whether using explicit information or implicit information influenced the form of the resulting interaction. The outcomes are different because the original premises for each group were different. These findings, while consistent with previous classroom research, are more wide-ranging. It is not only a three-part encounter that is occurring (Initiate, Respond, Evaluate). There is a great deal more to classroom interaction.

Student participation in lessons may be characterized as negotiated, as well. There is more to obtaining a turn-at-talk than being present in a classroom, one must be sensitive to the episodes characterized next.

4.4 Characterization of Episodes in a Classroom

Typically students and teachers meet in classrooms for approximately six hours daily, for five days each week. Most studies have reported on isolated activities during this time span. How the activities pursued during the major segments of that time are orchestrated is an issue that has been addressed ethnographically by few, including Florio's kindergarten group (1978); Dorr-Bremme's longitudinal two year study of one teacher with kindergarten and first grade students (forthcoming); Griffin and Shuy's (1978) cross grade study; and Mehan's (1979) mixed class of grades 1-3. We studied three classrooms (Kindergarten, Second Grade and Fifth Grade) in a bilingual school (Spanish/English) to determine the behavior students display to convey their functional classroom competence or interactional competence. Utilizing an ethnographic approach we sought to obtain the participant's perspective in making sense of the school day. This included determining the organization and the responsibilities for participating in the negotiated structure. We will now discuss four typical episodes which occurred in all of the classrooms we observed and in both language environments. The language, physical displays and responsibilities evident in each will be explained in detail. The four episodes were labelled by the participants as: Talking-About Time; Copying Time; Checking-at-the-Blackboard Time; and Getting Ready Time. The first three occur during "lessons", the

fourth occurs between "lessons".

Classroom lessons typically combine multiple activities which are focused on the development of one concept such as: numerosity; conservation of water; or slavery. In studying these concepts during one thirty minute segment of a day there may be such diverse activities as a discussion time, a writing time, and a role playing time. These seem to flow together as cars in traffic. However, just as a driver in a new territory must learn how the lanes of traffic merge and diverge (i.e., how the drivers organize the movement of cars through rush hour traffic), in a similar way, the activities incorporated in one lesson are inobtrusively interwoven.

Conversations between dyads may be marked by clear breaks in the organization as Scheflen has shown. However, when more people are involved in the activity, the junctures between the activities seem to be characterized more by ragged edges than by clean breaks. Thus, some participants may be operating on the last activity longer than others - while some students are moving on to the new topic. When all of the participants are focusing on the same activity, that segment of the lesson is clearly distinguished by many features including the language, and pedagogical focus. (This jagged edge is noted in Figures 4.11 and 4.12.)

We will now describe four such episodes or dances which are created in classrooms in the pursuit of accomplishing lessons. The partners in the dance are the teacher and the collective group of students. These times have been labelled by the participants as: Talking About; Copying; Correcting-at-the Blackboard and Getting Ready. These are representative of a larger class of activities observed - but serve to reflect the range of differences. The analysis is based on the assumption that there are identifiable, repeated features in the episodes which should be attended to in order for participants to access their knowledge of the responsibilities attendant to such an episode.

The fact that these lables were provided by the participants is important since it validates the ethnographer's analysis and provides justification for our conclusion that classroom participants acquire the knowledge of the rules and identify the situations where they must be applied in order for the class to have a shared focus, which is the major

component of a lesson. Figure presents a comparison of these characteristics across episodes. We will discuss the Language, Physical Displays and Responsibilities during each segment.

4.41 Talking-About Time

During a lesson there is frequently a time for the teacher to engage students in a discussion, drawing on the student's previously acquired information as well as presenting new information.

4.411 Language. The language of Talking-About Time focuses on elicitation and informative sequences. In one sense the distinction between a teacher-centered or student-centered discussion may be based on the primary sources of elicitation and informative sequences. In teacher-centered classrooms, the teacher provides most of the new information, and the teacher dominates elicitation interchanges by designating respondents and by acknowledging comments.

In student-centered classrooms, students post a much higher percentage of the questions and particiapte in interchanges with peers somewhat similar to everyday conversations frequently observed outside of classrooms. In fact, in the student-centered classrooms there might be multiple small groups working simultaneously with participants exchanging ideas as in schoolyard conversations. However, for our present purposes, we will not distinguish between student-centered and teacher-centered discussions. Rather, we will concentrate on the fact that when elicitation and informative sequences are the dominant mode of talk, we can characterize them as Talking-About episodes, whether teacher- or student-centered.

4.4111 Elicitation Sequences. Elicitation Sequences may be subdivided into Teacher Generated Elicitation Sequences and Student Solicited Sequences. Typical instances of Teacher Generated Elicitation Sequences (TGES) are presented in (12) and (13).

(12) T: Who remembers what a synonym is?
Frank.
S: Same words.
T: Uh, close. Who can say it better?
Ss: Ooh, me,me.
T: Me, me, I don't know. Karen.
S: The same meanings.
T: Okay. But the same meanings, what? You didn't say the whole sentence. Yes.
S: The same meanings that means the same.
T: The same meanings that mean the same of what?
S: Of the word.

T: Right. Two words that have the same or similar meanings.

(13) T: If I say glad, what's a synonym?
Ss: Happy.
T: Happy.

These sequences may be characterized as including the elements listed in (14).

(14) Teacher comment or request for topical information
Student response
(Turn holder - e.g. comments on turn allocation procedures, other behavioral rules)
Teacher response
(Teacher evaluation)
(Boundary Marker)

The items in parentheses are optional. Using Mehan's definitions for elicitation as exchanges of academic information (choice, product, process or metaprocess), we have identified additional components frequently present in these sequences.

In these instances the teacher has identified the topic for discussion and the mode for response. She has generated a discussion focused on a particular topic which is characteristic of TGES. When the teacher does not obtain an acceptable response to her question, there are several strategies which appeared in these situations including:

- repeating the question
- sanctioning another student's behavior after identifying a respondent and then repeating the question for the first student
- designating a new respondent
- telling the answer
- changing the topic

Since the question-answer format is the dominant strategy in the progress of the lesson, teachers utilize a variety of formats to help the lesson progress.

The turn-holders identified among the elements characteristically found in these sequences are particularly important as they may provide the opportunity for a student to continue to consider a response to a question, while the class is momentarily focusing on another issue,

particularly student behavior. This is an important issue especially as it is differentially employed by teachers. Teachers use these turn-holders to sustain their own turn-at-talk, and to sustain specified students' turns-at-talk. They accomplish this through such diverse methods as stopping dramatically in mid-sentence of an explanation to remind another student of appropriate behavior, returning to the original statement and completing the interrupted sentence (as in (15)).

We never saw these turn-holders being used by a student during the class discussions. Although we did observe students who presented expansive answers, thereby increasing the length of time they were given the floor, it never appeared as though they were using this time to come up with a more acceptable answer. Although we have certainly observed this in adult conversations and in college classrooms, it is possible that the age group and/or the classroom organizations observed were not conducive to such use, or they may be learned later.

The Teacher Generated Elicitation Sequences (TGES) represent one aspect of the turn-taking rules operating in the classroom. These turn allocation rules are context sensitive, that is, teachers don't randomly request chorus responses or student bidding. Our findings are consistent with Mehan who states, "The teacher's use of a basic turn-allocation procedure was neither random nor haphazard. Instead, the use of a particular procedure on a particular occasion reflected a strategic relationship between the teacher's academic agenda and the practical classroom situation" (p. 123). Our findings are consistent with this suggestion, as reflected in Figure 4.10 we observed that these turn allocation devices are intimately related to the lesson context.

Talking-About Time typically begins with a teacher statement identifying the purpose of the lesson activity. Student utterances usually do not begin the Talking-About Time; the teacher's utterances do. We have identified these utterances as Teacher Informative Pedagogical Sequences which occur in other segments of the lesson as well (see Figure 4.10). They have a teacher comment. In Mehan's (1979) terms, they apprise the class of what's going to be happening as well as conveying information, ideas, opinions. It calls upon respondents

to pay attention (p. 49) as in (15) and (16).

(15) T: Today we're gonna learn a new definition and a new type of word...
Write this word, homonyms...
We know synonyms. We know antonyms, and now we learned this funny word, homonyms. So let's see what it's all about. Let's see what are homonyms, alright. We already know that synonyms are words that have the same meaning. We already know that antonyms are words that have opposite meanings, right?
→ Akila, you're still not paying attention. And today, we're gonna learn what type of words are homonyms, alright...look at these two words (writes <u>two</u>, <u>too</u> on blackboard). Who would like to read them for me?

(16) T: Let's write a definition. Homonyms... And write the word again so that you learn it. So we'll talk about what's similar first, right. What's similar is the sound. What's the same is the sound. The sound is exactly
→ alike...(to Jose) Honey, where is your English notebook. Is this the one? O.K. Open it up to the page that you're going to be working on and write <u>there</u> - you have something there already. Start over here. Alright, underline the word <u>but</u> because the sound is exactly the same, <u>but</u>, very important <u>but</u>, they are spelled differently.

It is interesting that frequently during these pedagogical sequences, the teacher interrupts her monologue to identify a student who is not attending. We have identified these as Teacher Informative Behavioral Sequences since they focus on student behaviors noted near the arrow in each instance. They also serve as turn-holders. Teachers may interrupt themselves, but students may not, during this initial informative exchange.

If a student calls out while the teacher is explaining an activity (which may be identified as a teacher's turn-at-talk) this may be ignored and/or negatively sanctioned as in (17).

(17) T: You have to pay attention. If I get to you and you're dreaming somewhere...
S: You'll miss the word.
T: (placing finger on lips and facing student who called out - and then facing class at-large) O.K.

The sensitivity to context is even more critical when it becomes apparent that the omnipresent warning of "no calling out" is honored as much in the breach and is not the absolute prohibition it seems to

be. Rather, it seems that there are only certain contexts in which it is acceptable to call out. For example, let's look at (18).

(18) T: Antonyms...are words...that have...
S: The same meaning.
T: Not the same darling, the same are synonyms.

From the teacher's pacing of the words and the physical gestures, a student recognized the opportunity to participate by filling in the blank left by the teacher. The student's response was acknowledge and evaluated only on its content. The student was not cited for violating any rules. In fact, it seems that these rules with which a few students display adeptness may be at least as complex as attempting to get a word in edgewise in a heated conversation. The nature of the rules we observed are presented later in this section. For the present it is important to recognize the distinctive nature of the language in each episode of the lesson.

4.412 Physical Displays

4.4121 Shape and Form. The language present in a given segment of a lesson is only one important clue for distinguishing Talking-About Time from other segments. The line drawings presented in Figures 4.1 and 4.2 suggest the shape and form of this episode. The teacher typically moves in front of the class, around the room, and between the aisles during this time. The students, seated at their desks, move in synchrony with the teacher's moves. They move their heads, arms, and upper torsos to maintain a display of joint focus. Thus, when the teacher walks down the aisele the students turn to follow her as leaves in a breeze. The students mark this activity by positioning their chins parallel to the desk top, with movement varying between an 80° angle and a 100° angle. Their arms and shoulders are relaxed except when bidding to respond. The teacher, using the same angular position for her head, stands, sits, or leans mirroring students' form.

Talking-About Time may be characterized as principally a series of teacher explanations interspersed with two-participant interchanges which the remained er of the class observes and audits, with some ready to fill-in if the interchange breaks down. There is a common or joint focus for all the participants which may change during the activity. Typically, the blackboard, the teacher, the student respondent, or student text serve as the focus during Talking-About Time.

Figure 4.1 Talking-About Time: A Typical Physical Display

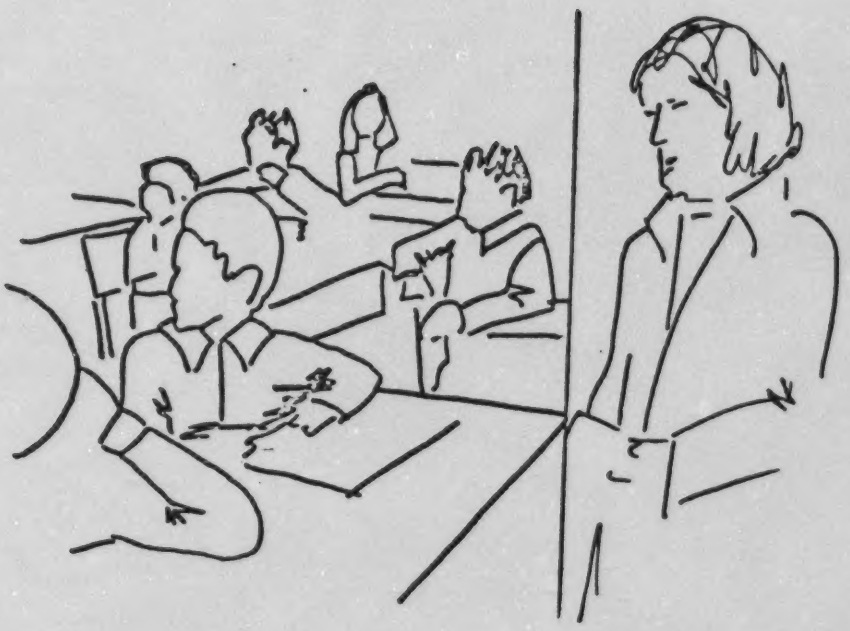


Figure 4.2 Talking-About Time: Another Typical Display

4.4122 Movement. The students and teacher mirror each others movements. The teacher points to identify a respondent; students raise hands (pointing to the teacher) requesting nomination. As the teacher places notes on the blackboard, the students copy those notes into their composition books. Some students display dramatic movements to emphasize their desire to see the material written on the board which may be blocked from their line of vision by the teacher or by a peer. When the teacher points to information on the blackboard for students to mentally focus on, students orient to the information on the blackboard. Throughout this activity there is an undertone of noise created by the rapid movements and the constant speech. (See Figures 4.1 and 4.2).

4.413 Responsibilities. During Talking-About Time it is the student's responsibility to adhere to the established turn-taking rules variously as a listener or as a respondent. The teacher is responsible for providing elicitation sequences and pedagogical sequences during Talking-About Time which is the mainstay of most lessons, and frequently appears in multiple segments of a lesson with other activities interspersed, often these are independent-type activities. Copying which we will characterize next, is one such activity.

4.42 Copying Time

Copying is a time when students work independently typically filling-in the blanks, or handwriting information presented on the blackboard.

4.421 Language. In contrast to Talking-About, during Copying Time there is little language used - one clear distinction between the episodes. The prototypical format of a copying episode follows:

A. The teacher provides information concerning the pedagogical intent of the activity (TIPS)
B. The students present questions to clarify their understanding of the assignment (SGES)

Since this event is a new episode in a lesson, it is frequently accompanied by a change in physical organization. This change is prototypically accomplished at the beginning of the episode (TIBS). If this is not the case, then this may be considered a violation of the rules and students and the teacher need to make "repairs" recognizing the

violation and combining the need to move along in the lesson while accommodating the individual participants and their knowledge of the rules. The repairs may include such activities as Teacher Informative Behavioral Sequences (TIBS) focusing on re-designing the organization of the classroom as in (19).

(19) T: Valerie, you can't see? Sit with Ruben.

In fact, if a student solicits information during this time the teacher asks for a repetition seemingly since it is so unexpected as in (21) below. In the lesson we observed there are infrequent Student Generated Elicitation Sequences (SGES). The intent seems to parallel the Teacher Generated Elicitation Sequences which predominate in Talking-About Time. Two representative instances are presented in (20) and (21).

(20) S: Do we have to copy that exactly?
T: Um, of course.

(21) S: You didn't write the other set of words.
T: What?
S: You didn't write the other set of words.
T: The other set?
S: Like that.
T: You have to find them. You have to find the homonym...the other set of words - You're gonna find. That's your homework.

These are important in many respects. In both instances, the students have been asked to <u>do</u> something. It seems significant that student questions are generated at a time when each is assigned to accomplish a task. These usually occur during an independent activity time, such as Copying.

The format of Student Generated Elicitation Sequences is particularly distinguished in classes we observed by its limited formats possible. In contrast to the multiple parts possible in TGES, the acknowledged SGES typically has only two parts - both required, i.e.:

Student Question or Comment
Teacher Response (Informative)

The teacher may request clarification of the student's wording involving an additional turn, but Copying Time was generally interpreted

as time for the teacher to give directions which were frequently verbatim repetition of previously uttered directions. Seemingly these Student Generated Elicitation Sequences were then viewed as being redundant, perhaps implying that the student was not listening when the original directions were presented. When there were multiple questions and responses of this type, particularly at the time when students were copying homework assignments, one might wonder whether this inattentive label is the only possible explanation for students posing these questions.

However, in characterizing Copying Time, it is essential to recognize that the teacher is not generating any elicitation sequences; in fact, students who raise hands during this time are not called on. In order to get the teacher's attention during this activity a student calls out. Those who do not are not recognized.

4.422 Physical Displays. We will first refer to Figures (45) and (44) which provide a sense of form and shape of Copying Time.

4.4221 Shape and Form. During Copying Time students are seated at their desks with opened books positioned on the desk top; their heads are over their books. In contrast to the 90° angle they presented during Talking-About Time, in Copying Time their chins are at angles ranging from 45° to 60°. The teacher's chin mirrors the students' whether she is standing at her desk, writing on the board, or walking among the students.

Some of the students kneel on their seats, some sit on the seat's edge; some lean over the entire desk - yet they all retain the same chin position. Their hands and arms are posed over their notebooks generally covering the page on which they are writing.

4.4222 Movement. Students focus on the materials on their desk tops (e.g., notebook, sheets of paper). There is no eye contact between teacher and student, even if the teacher is amplifying or repeating the directions. The teacher monitors the student's physical displays, confirming that all have the designated materials and all are writing something.

In the classrooms we observed there was constant movement, but general silence in the room. Students were writing and erasing in their notebooks (mirroring the teacher's copying from her notebook to

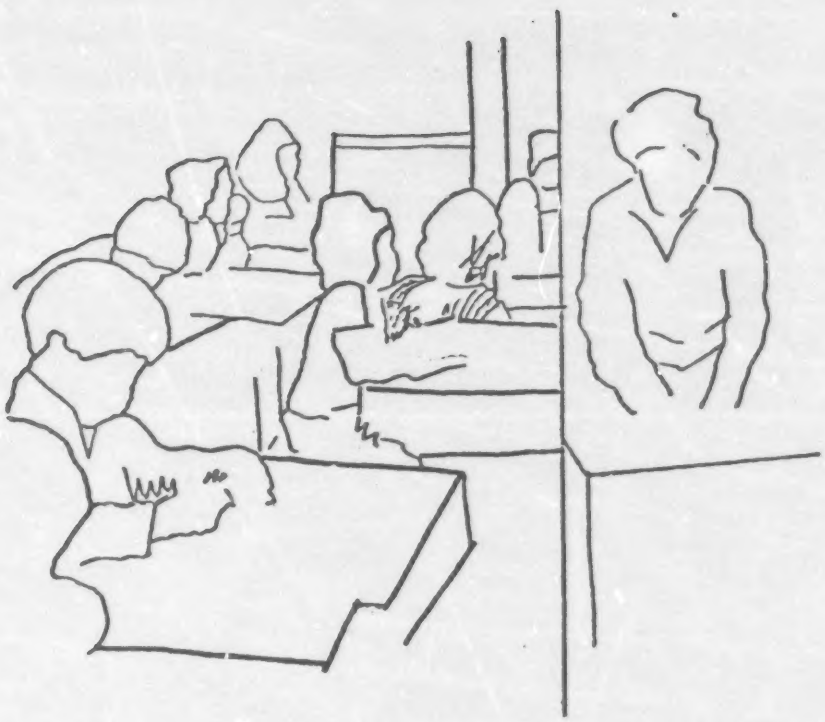


Figure 4.3 Copying Time (A Typical Physical Display)

Figure 4.4 Copying Time (Another Typical Display)

the blackboard). The heads bob in an arhythmic pattern reflecting the individual pacing of student progress in accomplishing the activity.

There are large trunk movements (in contrast to the small movements during Talking-About) to gain increased visibility of the blackboard. They move their upper torso from side to side while seated when the position of the student in front might be limiting the visibility of the blackboard. They might noiselessly jump into the aisle and quickly return to their seats if a stationary object (or the teacher) is blocking. During this time, students look at their own work and covertly eye that of their neighbors while remaining in their copying position.

4.423 Responsibilities. There are many responsibilities which are implicitly conveyed to participants as during all segments of a lesson. A student remains seated unless told by the teacher to do otherwise. They display a writing position characterized above. When students are not sure of the assignment, they mirror or copy their peers. Frequently they may confer briefly with the peer who is physically closest to them, without being negatively sanctioned.

They physically orient to the assigned material and dramatically display behavior of copying assigned materials. If the time for this activity ends before a given student has completed copying, a brief amount of additional time devoted to copying by this individual is usually not negatively sanctioned (this accounts for some of the ragged edges between episodes or activities).

If the teacher talks during Copying Time, presenting an explanation of procedures, (TIBS) students continue writing without establishing eye contact. Students may call out questions (SGES) requesting an elaboration on the procedures. Questions on the concept (in contrast to procedures) are responded to as though they were questions on procedure. Copying, therefore, is perceived as an activity for verifying the student's attention during Talking-About Time. Thus a direct relationship is implied between the student who participates and is attentive during Talking-About Time and the student who writes during Copying Time.

4.43 Checking-at-the Blackboard Time

Frequently teachers try to incorporate activities which provide the opportunity for at least some of the students to get out of their seats. One such activity was designated Checking-at-the-Blackboard. (E.g.: After the students completed a short written exercise evolving from the discussion in a Talking-About Time, they had the opportunity to compare the answers they wrote in their notebooks (during Copying Time) with six students, each of whom volunteered to write one answer on the board.)

4.431 Language. In some respects the language during this segment was similar to Talking-About Time in that there were Teacher Generated Elicitation Sequences, and turn-holders for the designated respondents. However, there were no Teacher Informatives (TIPS). There were TIBS utilized to hold turns of those students having difficulty finding the correct answer at the blackboard. Nor was there a full range of turn-taking opportunities available. Rather, the designated students who solicited the turn were the only respondents during this segment of the lesson. However, there were marked differences in the Physical Displays.

4.432 Physical Displays. Representative sketches of this activity are presented in Figures 4.5 and 4.6.

4.4321 Shape and Form. The students are either standing in a line at the blackboard or seated watching the students at the blackboard. The teacher is standing to the side in the front of the room watching the students at the blackboard. All of the students (those standing as well as those seated) and the teacher are physically oriented to the one student who is writing at the blackboard.

4.4322 Movement. To initiate this activity, the teacher presents a stick of chalk to the designated first respondent. The students at the blackboard move in turn to the assigned place at the board to write their answers and then return to their seats. When confusion develops, the teacher moves to the place occupied by the respondent, moving the student from this place.

As the activity progresses, some students move from their seats and stand in the aisles and closer to the blackboard, ostensibly to have a clearer view of the board. This also puts students closer together to confer about answers and to solicit turns which are not acknowledged.

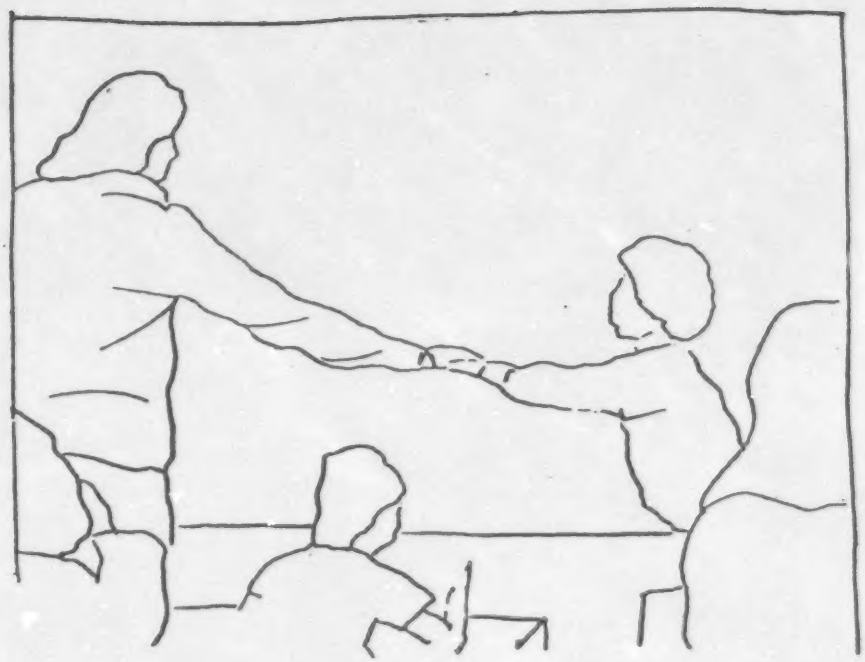


Figure 4.5 Checking-at-the Blackboard (A Typical Physical Display)

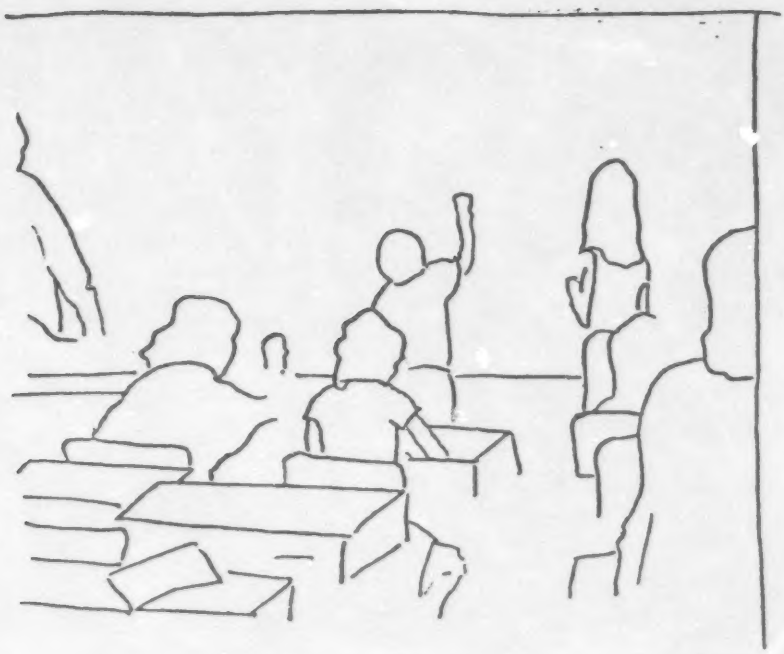


Figure 4.6 Checking-at-the Blackboard (Another Typical Display)

In fact it is only as a turn-holding device for a student at the blackboard that the teacher comments to one student who is out of his seat. When the last student has written her answer, the teacher reclaims the chalk, replaces the chalk on the board ledge and dusts the chalk from her hands, visually signalling the end of board activity.

4.433 Responsibilities. The Responsibilities may be grouped into two categories: Respondents and Observers. As volunteers, the respondents are responsible for:

Knowing the answer
Standing at the board without obstructing the view for others
Watching the process adhered to by those who precede
Writing the answer in the correct order
Writing quickly and clearly
Acting as if the answer to the question is known
Returning to their seats after writing answer

The observers are responsible for:

Watching the process, verifying the accuracy of responses
Allowing time for a student to respond before soliciting a turn
Coaching those having difficulty

4.44 Getting Ready Time

The three episodes characterized above represent aspects of one typical lesson, which by our definition requires joint focus. However, there are times which lead up to this joint focus which occur throughout the day. They are called Getting-Ready Times. The group (the students and the teacher) are organizing themselves to prepare for a new collaboration. Using the same criteria, we will characterize this aspect of a classroom activity.

4.441 Language. We have labelled the language which typifies Getting-Ready Time as Teacher Informative Behavioral Sequences (TIBS). They are exemplified by (22) and (23):

(22) T: Please mark the pages. Put your books away. Alright.
Let's count to five, put our things away and take out your English notebook.
1...2...3
If you have my crayons, bring them back...4...
Oh, Janet, I don't think you heard me. You're still coloring and that's homework assignment. You don't have to do that now. 5...Very few people are ready...Tele is...Ruben is...Rhonda is. Um, alright.

(23) T: Um, don't come to my desk. We're gonna correct it on the board, and the first people that finish will go and do the first examples. Alright, number 1, number 2, and number 3. Anybody else finished?

S: Yeah.

T: Number 4, um, number 5...who else is finished? Wait, wait, wait. Sit down. I'll call you. I'm just assigning you...Who else is finished? I assigned you, right? You finished? Number 6, Akila. Alright. Wait one half minute, Lawrence, and(when) everybody's ready we'll be able to see what you're gonna do...Well, you did it very fast, was it easy?
Alright...I want you to do the following. The people that I called, number 1,2,3,4,5, make a line over there.
Who's number 1?
No, but back, so everybody can see, like this.
Who's number 2? Number 3? Number 4?
Number 5? Who's gonna do number 5? Number 6...
Who's gonna do number 6? No I...Tele, did I call you? Who did I call? Akila, I called 6, who did I call 5? Who had finished before?...
Yes, O.K. Let's see how fast and how well you do. You do it and give the chalk to Ronald when you're finished.

They are classified by Mehan as requests for procedural actions. We noticed that they were extended teacher monologues which in addition to specifying particular actions, optionally included tracking and monitoring. Tracking is distinguished from monitoring in that the pacing of particular group movements was evidenced by the teacher's counting (e.g., Let's count to five...1...2, etc.; Very few people are ready. Tele is...).

Monitoring is used to identify particular students whose actions are inconsistent with the teacher's request (e.g. Janet, I don't think you heard me...; Wait one half minute, Lawrence). These TIBS were used for two different purposes. During Getting-Ready Time, they served to pace, monitor and track student progress toward accomplishing the transition between activities. During Talking-About Time, TIBS were used as Turn Holders. The Turn Holders served two discrete purposes: during teacher monologues (TIPS), TIBS were inserted, maintaining the teacher's turn-at-talk while the teacher stalled (see p. 60). In a similar sense, the teacher during a TGES inserted a TIBS focusing on one student's behavior, giving a second student (the responding student)

who was stalled to have more time to consider a response to a teacher question. This inserted TIBS represented by (24) was serving as a Turn Holder, and were especially utilized in Teacher Imposed turns.

(24) T: Give me a sentence with this word.
Um, Lawrence.
L: I, I cut wood. I cut wood.
T: I cut wood for what?
What do you use wood for?
(Teacher turns face toward Denise while maintaining body orientation to L.)
Uh, Denise, please, we are gonna wait till you are ready.
Yes (to Lawrence)
L: I cut wood to put in the fire.
T: Very good.

In addition to the teacher's language to the class during this segment, we noticed students whispering and talking softly to peers. A more casual but goal-directed air pervaded the room during this time.

4.442 Physical Displays. In Figures (4.7) and (4.8) the shape of this activity is presented visually.

4.4421 Shape and Form. The participants remain within the physical confines of the classroom during Getting-Ready Time but in contrast to those episodes occurring during lessons there is large-scale, gross motor movement. They rearrange their materials, reorganize the objects in the space around them (moving chairs, desks, books, clothes, bookbags). As the episode moves toward completion, the movement decreases. The teacher oversees all movement while reorganizing her own materials. There is no pedagogical focus, and no joint focus of any sort. In fact, this is an individual focus time rather than a group focus. The teacher monitors the movement to facilitate the accomplishment of a joint focus at the conclusion of this Getting-Ready Time.

4.4422 Movement. The movements of the participants are varied. Some go to the wastebasket, others to the teacher's desk, and some to the clothes closet. The moves are large motor movements in contrast to the movements constrained by students seated on chairs at stationary desks during lessons.

4.443 Responsibilities. Participants pace their reorganization of materials such that it is consistent with their peers' and their teacher's monitoring and tracking. While they are reorganizing, there are light, subdued conversations between peers coordinated with visual displays of reorganization.

Figure 4.7 Getting Ready Time (A Typical Physical Display)

81

Figure 4.8 Getting Ready Time (Another Typical Display)

Lessons are usually comprised of multiple episodes. These episodes might include activities such as "Talking About" or discussing a concept; and "Writing About" or an independent, teacher assigned activity. These are distinct segments of lessons with each episode being marked by distinguishably different responsibilities and language. We have presented the description of these in the previous section.

The language used during these episodes is distinctive as well. For example, let's look at Talking-About Time. The language predominating during this segment may be described as Teacher Informative Pedagogical Sequences [TIPS] (in which the teacher presents information) and Teacher Generated Elicitation Sequences [TGES] (in which the teacher designates information to be discussed and identifies respondents). These two types mark Talking-About Time. However, interspersed throughout both TIPS and TGES [within these interchanges] there are Teacher Informative Behavioral Sequences [TIBS] (which serve as turn holders), and Student Questions [SGES]. (See Figures 4.9, 4.10, and 4.11)

The use of TIBS is different from those in Getting Ready Time in which they do not become interspersed with anything else, but rather are used in isolation, behavior being the focus of those episodes. TIBS also may appear at the beginning of episodes requiring the reorganization of the group, namely providing blackboard visibility for Copying time. Again, as in Getting Ready, TIBS stand independently but to distinguish them from Getting Ready, instead of being the purpose for that segment, as TIBS are in Getting Ready, they facilitate the functioning of the new episode which has a different focus, such as TIPS in Copying. (See Figure 4.12)

Student Generated Elicitation Sequences [SGES] (usually student questions) usually appear during activities requiring students to work independently. Although they do not characterize any episode, they may appear during TIPS and TGES.

Figures 4.9-4.13 provide a graphic display of these characterizations. The looping evidenced in the concrete instances is an important phenomenon not discussed previously in the literature. We found compelling evidence for describing these looping episodes such as the

TALKING ABOUT PROTOTYPE

Legend

——— = Teacher Informative Pedagogical Sequence (TIPS)

~~~~ = Teacher Generated Elicitation Sequence (TGES)

Figure 4.9 Language During Talking-About Time: Prototype
~~~~

TALKING ABOUT INSTANCE #1

Counter Number	091	098	119	138	155	180

Time Approx. 6½ minutes

Legend

——— = Teacher Informative Pedagogical Sequence

~~~~~ = Teacher Generated Elicitation Sequence

Notations above the line are interruptions attributed to the teacher

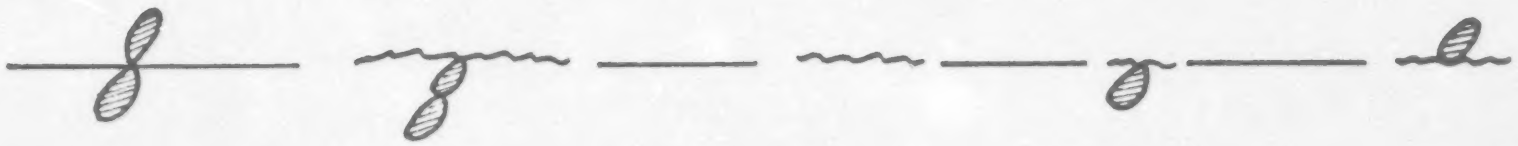
Notations below the line are interruptions attributed to the students

= behavioral loop

= content loop

Figure 4.10 Language During Talking-About Time: Instance #1
~~~~~

TALKING ABOUT INSTANCE #2



Continued

Counter Number

226 230-235 242 246-250 254 258 259 271 275 286

Legend

——— = Teacher Informative Pedagogical Sequence

~~~~ = Teacher Generated Elicitation Sequence

Notations above the line are interruptions attributed to the teacher

Notations below the line are interruptions attributed to the students

= behavioral loop

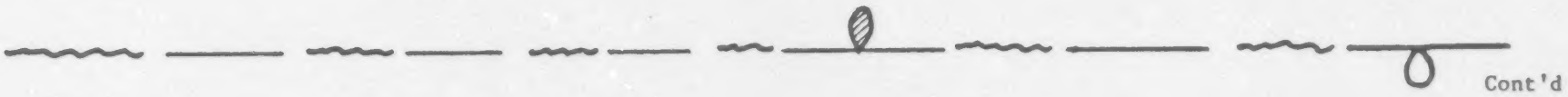
= content loop

Figure 4.11 Language During Talking-About Time: Instance #2
~~~~

TALKING ABOUT - INSTANCE 2 (CONTINUED)

Counter Number

288.5 289 291 316 318 321 329-331 337 351



Cont'd

Counter Number

356 370 381 408 420 422 438 438.5 441

Figure 4.11 Continued

TALKING ABOUT INSTANCE #2 (CONTINUED)

Counter Number	448	450	452	458	627

Time Approx. 29 minutes

Figure 4.11 Continued

COPYING TIME

Prototype

87

Instance #1

Figure 4.12 Language During Copying Time

CHECKING-AT-THE-BLACKBOARD

Prototype

Legend

——— = Teacher Informative Pedagogical Sequence

~~~~~ = Teacher Generated Elicitation Sequence

Notations above the lines are interruptions attributed to Teacher

Notations below the lines are interruptions attributed to Students

= Behavioral loop

 = Content loop

Figure 4.13 Language During Checking-at-the-Blackboard
~~~~~

turnholders evidenced during TGES and the behavioral interruptions (TIBS) occurring during TIPS. It seems that these events occur while all else is put on hold. The participants do not view these as behavioral sequences. They identify these segments as TIPS or TGES, and do not specify that a behavioral issue occurred. The teacher may continue a statement after having broken it in mid-sentence for a behavioral comment. But when asked what was occurring, she focuses exclusively on the TIPS or TGES and not the behavior (TIBS).

Instances of these loops are presented in (25), (26), (27) and (28).

(25) T: After you find a homonym you are gonna do in writing what we did orally. In other words, you take each word and you write a sentence with it, so that you → know exactly the meaning of the word. Are you listening, Omar? Funny way. That means you're gonna write ten short sentences with those words.

(26) T: Do you know what which means? Uh, tell me, Jeanette. (Knocking at door - teacher walks across front of → room, opens door and converses with adult in hall [approx. 45 seconds elapse] teacher closes door, walks across room).
Um, I forgot what I was saying, oh yeah - which (pointing to Jeanette) um, you know the meaning?

(27) T: What we're gonna do now is we're gonna go back to the other group. We're gonna collect the work. We're gonna do something else. In the meantime... → where's Akila? Sit down. Sit. Let's see who's sitting nicely... I'll tell you what we're going to do. You can take a puzzle and sit with the puzzle here.

(28) T: Natasha, give me a sentence for this rode.... Natasha, she's thinking...Yes..You know what rode means?...Who knows what this rode means? It is the past tense of what verb?

Ss: {ride
{rode

T: Of ride. It is an irregular past...Ride/Rode - → right? So, um, Ruben, excuse me. Natasha, can you give me a sentence with this rode now?

Similarly, student questions are not identified as the focus when they interrupt TIPS. It is interesting that just as most of the teacher interruptions are behavioral or procedural in content most of these student interruptions are concerned with procedures to follow. However, we did note the tendency of students to interrupt with different topics at the beginning and ending of Talking About and Copying, again recognizing the place of greatest potential for a new topic to be elaborated on.

Two related issues are important to consider when studying these interactions. First, the interactions we have analyzed are those acknowledged by the teacher, thus, comments called out without being acknowledged are not noted on these diagrams. Related to this is the recognition that a small number of students who called out were acknowledged. The difference seems to be both in the timing of their comments and the content of their comments.

Students who called out requesting information about procedures always seemed to be acknowledged. Questions or comments that were classified as content oriented, only seemed to appear at topic changes during the episode or at the conclusion of the episode, suggesting the sensitivity of selected students to the organization of the lesson, and the possibility of changing the focus at that time.

Another interesting issue related to the occurrence of thes interruptions is that frequently once there is one interruption, there are a series. This may be interpreted to suggest that some of the students did not know how to interrupt the lesson flow (i.e. with a procedural or a content concern) but once an interruption occurred, they prolonged it. The display of familiarity with the rules is impressive, but is not evidenced equally by all participants.

4.45 Episodes Across Languages

The most instructive aspect of this analysis, however, is the similarity across language environments in each room. Thus, "Talking-About Time" in Ms. Two's class, whether Spanish or English looked identical. The same rules and responsibilities prevailed. This finding was true for all three classrooms observed. Thus, when these students learned the rules for behaving in their assigned classes, the rules remained the same across language used for instruction at a particular moment. This finding is also important because it suggests possible interactions between each student's language facility and the type of participation evidenced in different language situations. (See Figures 4.14 and 4.15).

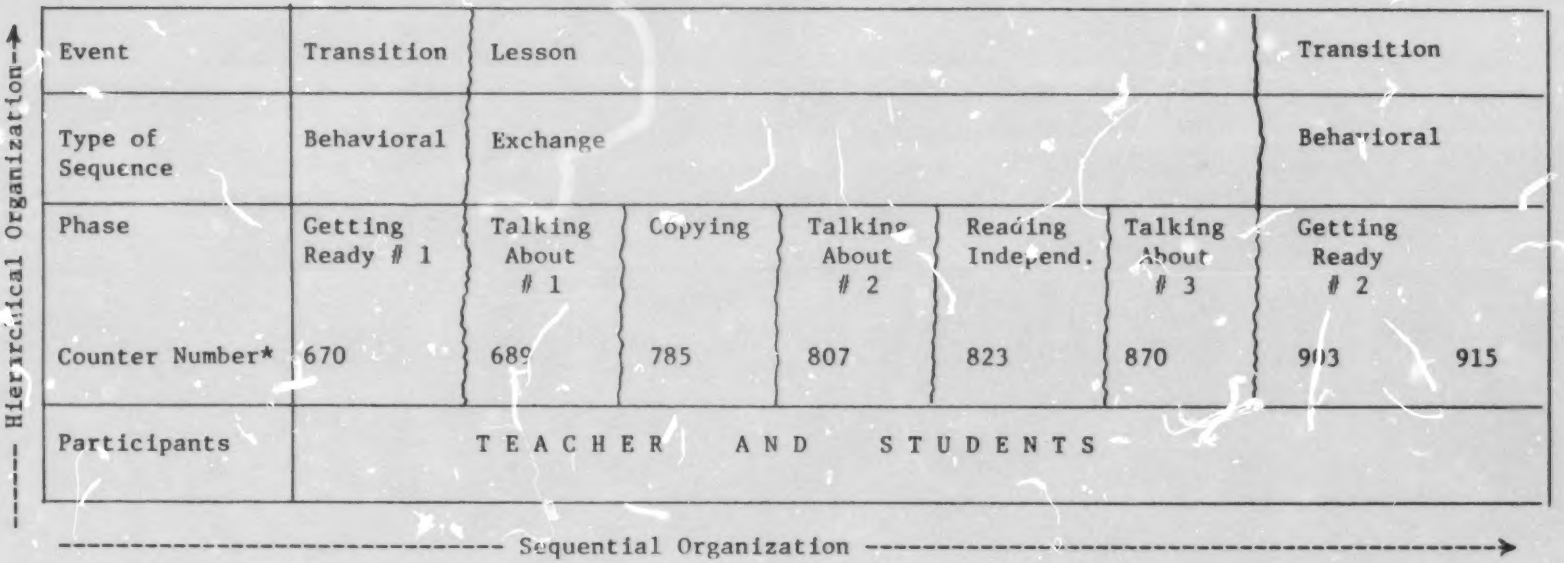
Figure 4.14 CHARACTERIZATION OF ACTIVITIES IN ONE ENGLISH LESSON

Event	Transition	Lesson					Transition
Type of Sequence	Behavioral	Exchange					Behavioral
Phase	Getting Ready # 1	Talking About # 1	Copying # 1	Checking at-the Blackboard	Talking About # 2	Copying # 2	Getting Ready # 2
Participants	TEACHER AND STUDENTS						

------Hierarchical Organization---→

----------Sequential Organization----------→

FIGURE 4.15 CHARACTERIZATION OF ACTIVITIES IN ONE SPANISH LESSON



*each digit represents 4¼ seconds

4.46 Summary

Mehan described the structure of a lesson as comprised of a sequential and a hierarchical organization as presented in Figure 4.16 Since we found similar behaviors, we have used his paradigm to construct a more expansive and more finely designed analysis of the structure of classroom lessons. In addition, based on the criteria identified by McDermott, Gospodinoff and Aron (1978) we have characterized differences in the Instructional phase based on the movements of the participants as required in an ethnographic study.

Mehan (1979) analyzes lesson organizations as Directives and Informatives which 'frame' the elicitation of academic information that comprises the interior of lessons, thereby distinguishing lessons from other parts of the stream of ongoing behavior" (p. 49) As noted in Figure (4.17) this generalization does not account for the lessons we observed. We found instances of directives during the lesson. In addition, we noted student generated sequences occurring during each lesson segment, some becoming large segments of the lesson while others were merely treated as slight diversions.

Mehan only discussed the language as an indication of the organization of a lesson. This is only part of an ethnographic approach. In fact, ethnographers suggest that it is impossible to understand the talk without understanding the scene. This is supported by the limitations we noted previously in attempting to analyze the class using exclusively a verbal protocol.

Mehan's notion that one person (the teacher) initiates a string of three-part interchanges was problematic; principally on our observation of the interactional nature of these sequences, and the difficulty in distinguishing between comments and initiations, we eliminated that component in our identification of episodes in a lesson (See Figure 4.17). Rather, the interactional requirement in classroom activities (and all social events) is noted in our Teacher/Student designation of the participants in each of the events. Using a multi-level analysis, we have found an interaction between two levels: the language and the physical displays constituting discrete episodes in a lesson as characterized in the preceding sections. At no point did we find two

THE STRUCTURE OF CLASSROOM LESSONS

Hierarchical organization ↑									
Event	Lesson								
Phase	Opening		Instructional				Closing		
Type of sequence	Directive	Informative	Topical sets		Topical sets		Informative	Directive	
			Elicit	Elicit	Elicit	Elicit			
Organization of sequences	I-R-E	I-R($E_{\emptyset}$)	I-R-E	I-R-E	I-R-E	I-R-E	I-R($E_{\emptyset}$)	I-R-E	
Participants	T-S-T	T-S-T	T-S-T	T-S-T	T-S-T	T-S-T	T-S-T	T-S-T	

Sequential organization →

Key: T = teacher; S = student; I-R-E = initiation-reply-evaluation sequence; ($E_{\emptyset}$) = Evaluation optional in informative sequence.

Figure 4.16 Mehan's (1979) Structure of Classroom Lessons (p. 73).

Figure 4.17 PROTOTYPE OF EPISODES IN A LESSON

Event	Transition 3 minutes	Lesson 55 minutes					Transition 3 minutes
Phase	Getting Ready # 1 3 minutes	Talking About # 1 10 min	Copying # 1 5 min	Checking at B[illegible] 5 min	Talking About # 2 10 min	Copying # 2 5 min	Getting Ready # 2 3 minutes
Type of Sequence	Behavioral	Exchange	Exchange	Exchange	Exchange	Exchange	Behavioral
Organization of Sequences	T I B S	T T I G P E S S	T S I G P E S S	T G E S	T T I G P E S S	T S I G P E S S	T I B S
Participants	T - S	T - S	T - S	T - S	T - S	T - S	T - S

Hierarchical organization

Sequential Organization

Key: S = Student
T = Teacher
SGES = Student Generated Elicitation Sequence
TGES = Teacher Generated Elicitation Sequence
TIBS = Teacher Informative Behavioral Sequence
TIPS = Teacher Informative Pedagogical Sequence

episodes with identical characteristics following each other as listed by Mehan in his Topical Sets. Perhaps this is attributable to our multi-leveled analysis as well as our analysis of the nature and the forms of interchanges. We found a lesson comprised of multiple episodes with repetition of some episode types within a lesson, but not adjacent to each other. This is presented in Figure 4.17.

Especially noticeable at the transitions between lessons, which we have identified as Getting Ready Time, are the ragged edges marking the differential pacing of individuals. The characteristic language of Getting Ready has been noted as TIBS. However, it is not unusual depending on the activity being completed, for student questions to be posed (SGES) or for the teacher to present additional pedagogical information (TIPS) related to student questions. Thus, the straight, clearly labelled segments are more accurately represented as in Figures 4.14 and 4.15.

In the graphic display of lesson episodes presented in Figures 4.14 and 4.15 we identified four different types of activities, three of which appeared twice. Thus we listed seven discrete phases including: Getting-Ready: Talking-About; Copying; and Checking-at-the-Blackboard. We have characterized these with Figures capturing part of the scenes. Figure 4.18 notes the Features Distinguishing Representative Episodes in a Lesson. These distinctive features comparing elements including Shape, Pedagogical Focus, Form, Movement, Responsibilities, and Language. The distinctive nature of these phases of a lesson and the rules and responsibilities inherent in these different phases were evident in our viewing of the tapes and our participant interviews. The multitude of episodes possible in a lesson suggests the need for knowing a diversified range of classroom rules and identifying the episode in which one is situated. By such identification one is able to participate in the episode according to the known rules (whether explicitily or implicitly conveyed).

FIGURE 4.18 FEATURES DISTINGUISHING REPRESENTATIVE EPISODES IN A LESSON

	GETTING READY	TALKING ABOUT	COPYING	CHECKING AT THE BLACKBOARD
Shape	Limited to confines of classroom.	Teacher moves around room, between aisles and in front of the blackboard. Students move in synchrony with teacher's moves but within confine of their chairs, moving heads, arms and upper torsos to maintain contact.	Students seated at desk with opened books on top leaning over book; Teacher mirrors this position standing at her desk or walking in the aisles between student desks.	Students either at blackboard or at seats watching those at the blackboard; Teacher standing at corner of room watching students at blackboard (All students and teacher are physically oriented to one student who is writing at the blackboard).
Pedagogical Focus	None	Common/joint focus on blackboard, teacher, student respondent, or notebooks. Series of teacher explanations interspersed with two-participant interchanges with remainder of class observing or auditing, and ready to fill in if interchange breaks down.	Focus on materials on desk top (notebook; textbook; sheet of paper) No eye contact between teacher and students. Teacher monitors student physical displays.	Blackboard
Form	Rearrangement of materials and positions. Teacher oversees movement. Movement decreases as this episode ends.	Students seated with head/chin parallel to desk top with movement varying between an 80° and 100° angle arms and shoulders relaxed except when bidding to respond. Teacher stands or sits or leans on desk top mirroring (cont'd.)	At desk with chin at 45°-60° angle with desk top (Some kneel on seats; some sit on edge of seat; some lean over entire desk top). Hands and arms relaxed in writing position.	Students seated facing blackboard where respondent is writing answer.

FIGURE 4.18 (Continued)

	GETTING READY	TALKING ABOUT	COPYING	CHECKING AT THE BLACKBOARD
		students' form. Constant undertone of noise		
Movement	Varied movements around room (going to waste-basket; clothes closet; teach-er's desk; book shelves) Large motor movements at desks (looking under desks at floor).	Teacher and students mir-ror each others' physical display -Students raise hands to volunteer (some stand when reciting) -Teacher writes on black-board; students copy into notebooks (some students make dramatic movements to emphasize their desire to see the material written on the board so as to be able to copy). -Teacher points to in-formation on blackboard; students orient to her at blackboard.	Writing and erasing in notebooks. Heads bob up and down in arhythmic pattern. Large movement of trunk to gain in-creased visibility of blackboard (mov-ing from side to side with lower torso and upper torso when student in front might be blocking visibility; in aisle when sta-tionary object blocking) Students look at their own work and covertly that of their neighbors while seated at desks.	To initiate this activity, the teacher presents a stick of chalk to the designated first respond-ent. Students at black-board move in turn to place at board to write answer and then return to seat. As activity pro-gresses, some students move from seats into aisle, ostensibly to see better. This also puts students closer together to confer about answers and raise hands to solicit a turn. Teacher moves to place designated for re-spondent when confusion develops and teacher moves student from this place. When activity ends, teacher reclaims chalk, rewrites last answer, and replaces chalk on ledge; then dusts hands.

(cont'd.)

FIGURE 4.18 (continued)

	GETTING READY	TALKING ABOUT	COPYING	CHECKING AT THE BLACKBOARD
Responsibilities	Pace movement consistent with peers' and teacher's monitoring Organize materials identified for next activity Light conversation between peers coordinated with movement around room while reorganizing materials permitted.	Follow turn-taking rules as listeners and/or respondents. Copy the material placed on the blackboard.	Remain seated and in position for writing - with adequate provision for visibility of blackboard. If teacher talks (e.g., presents explanations of procedures) listen without establishing eye contact; continue writing; Questions about procedure may be called out during the time when the teacher is providing information. If not sure what to do, students should copy/mirror what peers are doing; they may confer with neighbors quietly during this time. If student is not finished when group is getting ready for the next activity, they may continue until finished. (cont'd.)	Write correct answers on board. Observe process of students writing answers to verify accuracy of response. Coach those who have difficulty. Don't say that you don't know what to do - act as if you know what to do. Only volunteer when you think you know the answer. One student writes an answer at a time. Students who are waiting to write their answers on the blackboard stand so that the blackboard is visible to all. When a student has the floor (has been assigned to select the correct answer) others allow time to answer.

(cont'd.)

FIGURE 4.18 (continued)

	GETTING READY	TALKING ABOUT	COPYING	CHECKING AT THE BLACKBOARD
			Copy whatever is assigned Physically orient to material to be copied. Don't ask teacher questions that might reveal lack of understanding.	
Language	Teacher Informative Behavioral Sequence Requests for Action. Tracking, Monitoring, Whispering.	Teacher Elicitation Sequences Turnholders (TIBS) Teacher Informatives - Pedagogical Sequences	None	Teacher Generated Elicitation Sequences Turn holders

4.5 Organization of Interactions During a Lesson

In order to have a lesson, students and teachers must interact. Student participation in class may be solicited by students or imposed by the teacher. We are intentionally avoiding the use of the term initiate since we recognize the interactional nature of discussions in the classroom. Thus, it would be misleading to believe that the teacher initiates or that the students initiate. Rather, there seems to be a negotiation in this function of the classroom as in other aspects as well (see Brause and Mayher, 1982). If the teacher poses a question and no response ensues, i.e., no bidding, no calling out, etc., the teacher may follow numerous courses including elaborating on a request; providing more information; or rephrasing questions. Similarly, students may solicit a turn-at-talk while the teacher is explaining; evaluating a student's response; or chastising a student for certain behavior. However, it is impossible for us to determine in a linear fashion, the cause and effect of turn-allocation. Rather, recognizing the dynamic nature of human interactions, we eschew the notion of one initiating something independently and acknowledge the interactional nature of obtaining a turn-at-talk which typifies classroom interactions. Additionally, an analysis of the quantity and quality of student turn allocations may provide important information concerning the negotiated, interactive processes in classrooms.

4.51 Listening

As in all discussions, there is the opportunity for only one speaker to obtain the major attention of the other participants (attention may be given to parallel conversations but this may be done covertly as identified in the Cocktail Hour Syndrome, but the "arrow of discussion" follows one path). Thus, while one person is talking, approximately 35 others are ostensibly listening. Recognizing the pervasiveness of listening in classroom organizations we will discuss that first. In addition, it is possible to order the types of classroom participation from least differentiated to most differentiated - or from most likely to be acceptable to least likely to be acceptable in the classrooms observed. These orderings may suggest important issues for teachers to study in evaluating the organization of their classroom and their objectives for student learning.

Rules for Listening

1. As a general rule, do not speak unless specifically requested by the teacher to do so. Remain seated unless told to do otherwise.

   When not clear on what's happening, students copy what "model" peers are doing.

2. Students follow the teacher's agenda. When not holding the floor, participants are monitoring and displaying the reactions to the interchange, i.e.: They act as if they are attentive (physically synchronize with interactants' moves; writing in designated location in appropriate material). They don't interrupt by raising hands or calling out in the middle of an interaction.

3. If an answer is rejected, others may bid to be nominated.

4. If a student evidences confusion while responding, help is proffered by the teacher or peers.

5. Answers may be discussed quietly with neighbors only if the interaction continues for a relatively long time due to confusion.

Those not following any of these rules may be ignored or negatively sanctioned. A more differentiated analysis would permit a student to utilize one of the higher numbered rules. Physical displays of attentiveness are consistent with those identified previously for each episode. Thus, there is not just one position which evidences that a participant is "listening" to the activity. Rather, the participant's physical demeanor must reflect that which is appropriate for the episode currently being enacted.

When one is listening one is expected to display a range of behaviors consistent with a specific event. Thus, "listening" behavior during Talking-About Time would be displayed by a student's synchronous moves with the teacher as she moves around the class. During "Checking-at-the Blackboard" listening would be apparent by a student's watching the student writing at the blackboard.

Listening is an activity imposed on all students for they are supposed to listen to the teacher and to their peers as they participate in lessons. In addition to listening during class, students have an opportunity to obtain a turn-at-talk, an issue of interest to many.

4.52 Types of Turns-at-Talk: Rules for Obtaining

We present in Figure 4.19 our grouping of turn-types which is compared to those presented by Mehan (1979) and Cahir and Kovac (1981). Mehan identified three types of selection procedures, namely:

Individual Nomination
Invitations to Bid
Invitations to Reply

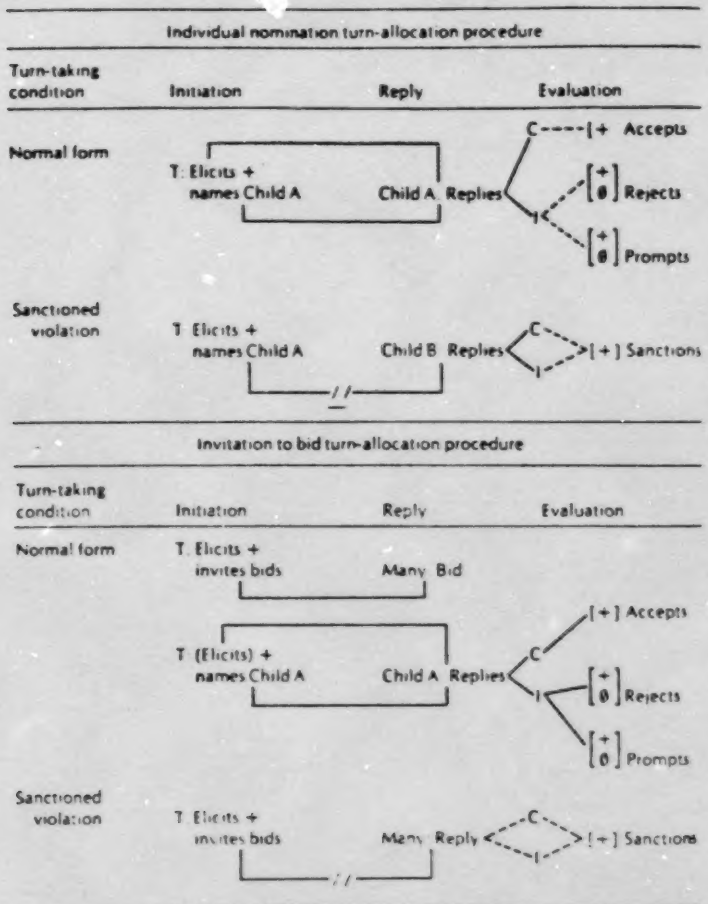
FIGURE 4.19 STUDENT - TEACHER INTERACTION CHARACTERIZATIONS

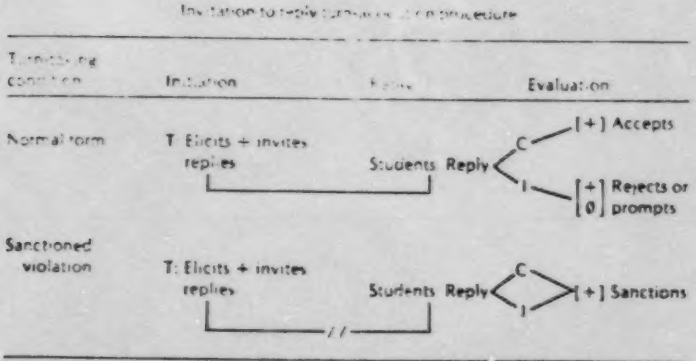
Mehan (1979)	Cahir and Kovac (1981)	Brause, Mayher and Bruno (1982)
Individual Nomination (Teacher nomination - no distinction in student role, i.e. bidding or nonbidding)	Individual Nomination (Teacher brings students into lesson; focuses student on topic; used to reprimand student; recyclable questions used)	Student Solicited Turn Bids - Bidding for Nomination (including calling out for nomination) Claims - Calling out Responses or Comments - Calling out Questions
Invitation to Bid (Teacher asks students to raise hands)	Invitation to Bid (see Mehan)	
Invitation to Reply (Students are asked to state what they know directly - often in unison without being named or obtaining the floor by bidding.)	Invitation to Reply (Calling out responses - usually only one correct answer)	Teacher Imposed Turn - Identifying Non-bidding Students - Assigning Automatic Turn-Taking (Round robin and Choral responses)
	Automatic Turn-Taking (Round-robin)	
	Turn Not Assigned (Calling out or nomination, depending on teacher decision)	

Cahir and Kovac added two turn-types to those identified by Mehan, i.e. Automatic Turn Taking and Turn Not Assigned. Mehan and Cahir and Kovac identified ways that the teacher gets students involved in the lesson. This may be interpreted to suggest the teacher allocates turns, rather than the dynamic process we describe here. This perspective is critical also when one assumes that students are equally knowledgeable about the rules for obtaining these turns and how to handle a turn-at-talk, once the floor is obtained. This assumption seems implicit in Cahir and Kovac's (1981) observation, "Invitations to bid, while more time consuming and potentially disruptive, have the advantage of involving as many students as want to be involved" (p. 8). Our findings suggest that students do not display similar behaviors. This may be interpreted to mean that some are more adept at acquiring a turn-at-talk. Another analysis might suggest that the teacher does not structure opportunities to accommodate a diversity of participation strategies or turns-at-talk. This issue is important if functional classroom abilities is equated with contributing to the progress of a lesson through participation in the turns-at-talk. Thus, the distinction between Teacher Imposed Turns and Student Solicited Turns is a very important one.

Our focus, distinguishing between solicitation and teacher imposition is an important one in our analysis of classroom functioning when we recognize the interactional nature of these situations and understand the responsibilities of students as participants in these activities Dorr-Bremme (forthcoming) distinguishes between student "bids" for the floor during "First Circle" and student "claims" for the floor during First Circle which are both subsumed under our general category of student solicitation. In addition, we distinguish between claims presented as questions and those phrased as responses or comments. Mehan presents the procedures for accomplishing different types of turn allocations in Figure (4.20). He presents three different "rules" but does not tell us how the initiations are orchestrated. Nor does he describe the distinguishing characteristics between initiation types. He tells us the teacher "elicits" and either names or invites. However, the operations involved in this process have not been described. Since we think the implicit rules for turn-taking are present during these moments, we will describe them in detail. Thus, we expand Mehan's, Cahir and Kovac's and Dorr-Bremme's findings.

NORMAL FORMS AND SANCTIONED VIOLATIONS
OF THE BASIC TURN-ALLOCATION PROCEDURES





Key: Braces indicate co-occurrence relationships. // indicates a broken co-occurrence relationship; C = correct reply, I = incorrect reply, 0 = no evaluation

Figure 4.20 Mehan's (1979) Depiction of Turn-Allocation Procedures (pp. 104-5).

4.521 Teacher Imposed Turns. One way to obtain a turn-at-talk is to be designated by the teacher as in (29):

(29) T: Wanda, give me a sentence with this blue.

4.5211 Non-bidding students. The teacher may designate a student for a turn-at-talk without the student bidding for a turn. This designation may take the form of verbal nomination, head nodding, shoulder tapping, and/or other physical displays identifying a student as next speaker. Thus, as a member of the class/group, one may be required to respond to a teacher nomination for which the student did not bid, for example, (30).

(30) T: Who else would like to give me a sentence with would?... How about you Denise? Because you're talking with Lynette all day.

It is interesting that this procedure is followed for two seemingly different purposes, one being to increase involvement in the lesson; the second to monitor conduct. However, both may be interpreted as ways the teacher uses to keep students accountable; that is, the student's behavior reflects active participation in the class, and thus the teacher uses nomination as one way to verify this obligation. Thus, teacher nomination without student bidding may be described as a technique verifying student attention to the discussion being conducted in their class/group. This is apparent in (31), similar to Cahir and Kovac.

(31) S: (Rubin who is whispering to peer... inaudible on tape)
T: Alright Rubin, you have something to say?

Knowledge of these rules may be displayed in many ways. For example, students may stand when nominated, yet remain silent. Others may display behaviors usually negatively sanctioned (as in (31)) to obtain a turn-at-talk, thereby using their knowledge of rules and the consequences of violating the rules to obtain a turn-at-talk.

4.5212 Automatic Turn-Taking. The Automatic Turn-Taking characterized by by Cahir and Kovac described the round-robin technique in which prepared response materials (i.e., sections of text) were assigned in a systematic turn-allocation process. This text provided the verbal output for the designated turn-at-talk. It seems to us that choral responses are similar to these round robin strategies in that the verbal output is determined in advance for the student as in turn-allocation. It is not the student's responsibility in either of these activities to present

ideas or solicit a turn. Rather, they are expected to play a part in a predetermined skit. This contrasts with the other turn-types discussed in that the responses are given to the students in this instance, and in the other turn-types, the students are expected to present the responses "from their heads." It is due to this similarity in the source of the response and the allocation procedure followed that we have placed both round robin and choral responses as instances of Automatic Turn Taking. Mehan's system may include this in the category of Invitation to Reply. Chorus responses were the type of automatic turns we observed most often. Instances of their use include (32), (33), and (34).

(32) T: Homonyms, say it.

(33) T: Would, say it.

(34) T: Everybody, first.

This turn-taking type allows only parroting by the children of what the teacher has indicated. It serves an important purpose, however, when working with groups, which is quite different from those in which there is teacher nomination. The teacher utilizes choral responses to establish consensus regarding the activity on which to focus. Cahir and Kavoc (1981) state "invitations to reply are often used to get the class engaged in the activity, and as such they can frequently be found at the beginning of lessons" (p. 8.).

We noticed that chorus responses were used to mark the continuation of an activity (i.e., studying homonyms, but approaching it in a new lesson segment, as in copying) and suggested the importance of establishing a common point for all participants, in essence, regrouping to continue. For example, the teacher specifically requests uniform verbal participation in utterances (32), (33) and (34). However, none of these appears at the beginning of the lesson.

Cahir and Kovac present a very careful analysis of the round-robin process. These were not used often in the classes we observed and diminished as the grade level increased. This diminished use might be considered consistent with Bruner's (1982) findings concerning the differences between early and later formatting used by caretakers in helping children understand the physical world around them. The format of teacher-imposed turns may be used to introduce children to classroom

turn-taking procedures. After a while, these seem to be replaced by more complex formats as in student solicitation of turns-at-talk.

4.522 Student Solicitation of Turns. So far we have only discussed teacher initiated activities. We also observed what might be described as student initiated activities. These are sometimes reflective of student expectations based on patterns established in the class. At other times, these may be described as attempts at refocusing the topic, changing the topic, or moving the lesson along. For example, let's look at (35).

(35) T: What do you use wood for?
(Student whisperings unacknowledged by teacher)
T: Uh, Denise, please, we are gonna wait till you are ready.
S: (Raising hand - not Denise.)
T: Yes (acknowledging hand-raising student)

In this sequence it seems that the student has kept the teacher accountable for continuing the teacher-designated topic by successfully obtaining the teacher's attention to his bid to answer. Thus, the student was the initiator of this part of the interaction. Although previous studies have reported the three part sequence in classroom interaction, the possibility of the initial part being non-verbal and the interaction emanating from the students are important findings. (In fact, the clean scripts which represent much of the data presented heretofore seem less representative of the classroom environments we visited). The traditional view: that the student's responsibility in a classroom interchange is to supply responses to teacher questions; and the teacher's responsibility is to monitor content and form of student responses, although representative of much of what transpires in classrooms, neglects the student-teacher interchange as a negotiated process, with each obtaining varying degrees of success when bidding for class time and responding to bids from others.

As noted in Figure 4.20 we identify two major types of student solicitations consistent with Dorr-Bremme (forthcoming). These are labelled Bids and Claims. We will discuss bids for nomination first.

4.5221 Student bidding for Nomination. The process involved in bidding for a nomination includes the following:

1. Recognition of an Opportunity for Nomination:

   Teacher produces an utterance addressed to the class/group requesting specific information wherein the teacher physically orients to the class and establishes eye contact with individual students and displays a host of other behaviors indicating s/he is ready to discuss.

2. Actions to Obtain Nomination:

   Students raise hands; physically orient to the teacher and attempt to establish eye contact with the teacher, perhaps by waving hands or the like. Students wait to be nominated. (To be excluded from the potential pool while displaying behavior desirous of being nominated, and implicitly cooperating in the lesson, omit at least one component listed above, i.e. avert eye contact; drop raised hand; or adjust physical orientation to not mirror teacher's.)

A more differentiated bid would recognize these opportunities:

-If a student is designated to respond yet, based on teacher statement or previous instances, the student is not likely to respond, it is possible for another student to be nominated in this first student's stead. So, after this first student is nominated, students may then keep hands raised (but not as actively as during the preceding bidding time.)

-If a student's response is not accepted by the teacher, other students may bid for the next turn.

We found many instances of utterances as Mehan and Cahir and Kovac did, which were utilized to solicit nomination including (36), (37) and (38).

(36) Who remembers what a synonym is?

(37) Who can tell me what antonyms are?

(38) Who would like to read them for me?

These may be characterized as full (in contrast to elliptical) questions requesting that students who know the answer signify this by soliciting a turn. The teacher tends to call on volunteers except in special instances including when no one is volunteering; a student's behavior is questioned; or when it appears that a few students are monopolizing the discussion and more wish to participate. We found this type of turn to appear most often at the beginning of a lesson and at the beginning of episodes within a lesson. These questions are also recyclables (Griffin and Humphrey, 1978) which means that multiple consecutive responses to the same question will be sought. It is interesting that

these utterances are usually "complete" in contrast to those appearing in sequences in which students call out responses, which we discuss next.

Teacher nominations of students who are bidding for a turn occur most often during Talking-About or Discussion time. This is a major time for student bidding. There are times when students may be nominated and times when they may not be nominated. Thus, the students who recognize the implicit constraints on different episodes know when they need to call out to be nominated, when hand raising is a method for obtaining the floor, and when not to respond to the teacher's question as in the middle of a copying activity which is interpreted as a rhetorical question. In fact, as represented in (39), the teacher specifically selects a student to respond since no one else seems in a position to do that.

(39) T: (Explaining use of to in a sentence) I'm gonna send a letter to my friend or to whoever - my father, that's right (goes to blackboard to write) I will...send...a letter ...to...to whom do you want to send the letter...Teddy?

This episode suggests the tacit understanding some have of the context in which teacher nominations are possible - and since copying is not such a context, the teacher needs to make repairs to accomplish the objective - to get a "student's" sentence on the board using the word to. (It is interesting to observe how the child's original sentence, "I'm going to send a letter" was changed). Similarly, there are no teacher nominations during Getting-Ready Time. All direct questions to students are interpreted as rhetorical if occurring at a time other than discussion time, as in (40) and (41).

(40) T: Everybody can see the words?

(41) T: Any questions as to what you have to do?

This contrasts with utterance types (36), (37) and (38) used during discussions. Although both are similar utterance types, (40) and (41) seem to focus more on group response whereas (36), (37) and (38) solicit an individual respondent. The class (i.e. students and teacher) recognize the different rules prevailing in different contexts and therefore react to questions differently, depending on the context. Thus, one must know the rules, as well as the contexts in which they apply. This finding is consistent with Mehan's (1974) statement: "The interpretation

of rules is a negotiated process; teachers' instructions are indexical expressions, which requires teachers and children to employ contextually bound interpretive practices to make sense of the instructions." (pp. 128-9)

4.5222 Student claims to turns. Although students call out at many moments in lessons, they are acknowledged less often, but thereby, tacitly approved. This finding is different from McHoul (1978) who asserted "In classrooms no other participants than teachers have the right to self-select as first starter" (p. 192). Perhaps there is a problem in determining what constitutes a first starter. However, recognizing this as a problem similar to that of "initiate" a term which we discussed and rejected previously, we will proceed to discuss subsets of this category: Calling Out Responses/Comments and Calling Out Answers.

4.52221 Calling out responses/comments. Students call out to be nominated when the teacher is physically oriented to students establishing eye contact; yet there is a brief delay between the teacher's utterance requesting a response and the teacher's designation of a respondent. The use of a verbal modality in addition to the hand raising described above, in soliciting the teacher's attention and hoped for designation as next respondent, is effective in establishing eye contact between the calling out student and the teacher. However, this almost never results in nomination. Rather, it usually results in the teacher's chastising the offending students before the teacher proceeds to nominate another. It seems that the students are filling in a pregnant pause which they find embarrassing. It, in fact, delays the turn-taking process rather than facilitating it. Dore and McDermott (1982) present an important analysis of this phenomenon.

Students also call out responses to teacher utterances after a turn has been allocated by teacher nomination. This category was labelled by Mehan as Invitation to Reply. On examination of the use of this type of turn-taking activity, we found that it only occurs in certain settings. After at least one student has had the opportunity to respond to a question through teacher nomination, it is possible for subsequent turns-at-talk to be acquired by students who shout out responses to the teacher's questions, such as:

(42) T: Opposites what? Words that have opposite what?

(43) T: Like black and?

(44) T: How about the spelling?

(45) T: A mail truck is a truck that car...ries...?

In contrast to those utilized in student bidding for nomination, it is interesting that these questions are elliptical. They are intended to build on information originally discussed in turns allocated by teacher nomination, thus they may be included in the grouping of activities characterized as recyclable questions by Griffin and Humphrey (1978). A similarity in both of these response types (i.e. bidding for nomination and calling out responses) is the tone of voice utilized: both are spoken loudly and clearly. Another way for students to solicit a turn-at-talk is to call out questions but in the lessons we observed, these usually were whispered.

4.52222 Calling Out Questions. Called out questions are spoken in subdued voices, yet, significantly, were acknowledged by the teacher as in (46), (47) and (48)

(46) T: Today we are gonna learn a new type of word. Today we're gonna learn a new definition and a new type of word. Write this word...homonyms.
S: What?
T: Homonyms, say it.

(47) T: Let's write this...words that have...that have what children?
Ss: Same meanings.
T: Same meanings or similar meanings...such as?
S: Such as what?
T: Give me an example.

(48) S: Do we have to copy that exactly?
T: Of course. Copy the six words.

An equally significant generalization is that student questions appear when students are asked to do something as in writing words, or in providing examples.

It is essential to recognize that a student's calling out does not necessarily result in access to the floor. Rather, the teacher must physically orient to that student in order for a given student's turn to be recognized. For example, let's look at (49).

(49) T: If I say sad, what's a synonym?
S_1: Selfish.
S_2: Unhappy.
T: Who said that? Right. Unhappy. Unhappy is a synonym of sad.

In this instance we see that there are multiple audible responses, but only one correct one. The teacher, hearing a correct response, orients to the direction from which she heard the voice offering the correct response and then physically orients to that student. Thus, only the correct respondent retrospectively had an approved turn. In a similar way, the students must be attending to the teacher for the teacher to have a turn-at-talk.

4.523 Rule Violations. The validity of the rules for obtaining a turn-at-talk is eviden when there are specific articulations of rules and when there are rule violations evidenced by negative sanctioning. For example, if a student's hand is raised and the student is physically as well as visually oriented to the teacher, the teacher may nominate the student to take a turn. However, sometimes, students do not respond once called on, as in (50) and (51):

(50) T: Raise your hand if you can think of two words that are opposites (T. points to student with raised hand...no response.)
Think of it first, then raise you hand.

(51) T: How about you, Valerie? You've been jumping around...Valerie, yes...No? So why do you Raise your hand so much?

The students in both of these instances used some of the rules, but not all of them. They are able to obtain the "floor", but do not fulfill their responsibilities after soliciting the turn.

At other times students call out answers without being allocated a turn. They neither physically orient to the teacher, nor wait for the teacher to designate a respondent. Rather, their remark is shouted out but goes unacknowledged. (But sometimes it is incorporated in their teacher's explanation which their remark interrupted.) The students who follow this procedure routinely may disregard the rules followed by others but tend to be tolerated in the classroom. Thus, their calling out gives evidence of their knowledge without fitting into the rules followed by others. This practice does not get them an "official" turn-at-talk, yet they have spoken and are not criticized; this is an important use of the system (as noted by McDermott, 1977).

If the teacher poses a question and no response ensues (i.e., no bidding, nor calling out, etc.) the teacher may follow numerous courses

including elaborating on a request; providing more information; or rephrasing questions. Similarly, students may solicit a turn-at-talk while the teacher is explaining; evaluting a student's response; or chastising a student for certain behavior. However, it is impossible for us to determine in a linear fashion, the cause and effect of turn-allocation. Rather, recognizing the dynamic nature of human interactions, we eschew the notion of one initiating something independently, and acknowledge the interactional nature of these events, thus making the rules constantly subjected to revision.

4.524 Summary. To obtain a turn-at-talk, participants must identify the potential opportunities and use the rules related to each turn-type, which are similar to those identified by Sacks, Schegloff, and Jefferson (1974) in conversation, Mehan (1979) and McHoul (1978) in classrooms and Edelsky (1981) in faculty meetings. Mehan (1974) has noted the limited amount of information provided in teachers' instructions.

> Teachers' instructions during classroom lessons do not provide children with all the information they need to follow the instructions. The child must look elsewhere for assistance in interpreting verbal instructions, commands and questions. He must attend to the materials he is working with, his classroom experiences, other children's activities, the teacher's gestures, body orientations and voice intonation. The child must call on instructions given to him on previous occasions; he must decide which among the many instructions given to him previously, applies in a particular situation. (pp. 87-88)

Recognizing the need for utilizing many cues and the limitations on an exclusively verbal rule perspective, we described some rules based on our data which operate implicitly in the classes we observed. We also distinguished two major categories, i.e. Student Solicited Turns and Teacher Imposed Turns.

4.53 Responding

Once one successfully obtains a turn-at-talk, whether it is student solicited or teacher imposed, there are general rules which are followed. These are specified and discussed below.

1. When the teacher designates a student as next respondent, the student is expected to respond promptly. This response includes physical orientation to the teacher and a verbal utterance. (Student's body shape should mirror the teacher's. Some students may stand when responding.)

A. If an audible reply is not presented, yet physical orientation is maintained, the teacher may provide a turn-holder for this student. She may offer additional assistance in answering as in (i) and (ii) or merely offer additional time by momentarily refocusing attention to another student's behavior (iii).

(i) enlist the assistance of other students in defining terms included in the response solicitation, or

(ii) provide clues as suggested by Mehan, (i.e. Remember Halloween and witches and broom sticks?); characterize use (Which is better for choosing.); or offer examples (Which movie would you like to see?)

(iii) cite a student for poor behavior or physical display inconsistent with the display of attention identified with a particular episode/context.

B. A change in physical orientation accompanies the ending of the interchange. When the physical display is not present, the turn has been completed.

2. Prompt responses are expected.

A. If a student does not answer promptly on being nominated, peers may raise hands, bidding for next nomination (an instance is provided in (52)).

(52) T: (pointing to picture on flannel board) Who is it?...Vanessa?...Let Vanessa think... ...Luis?

S: (Luis): Mailman.

3. Audible responses are expected. (Sometimes the teacher requests that responses be "long" or presented in "complete sentences".)

4. Information presented should be relevant to the topic under consideration. (Related to this, Cahir and Kovac indicate the need for a "unique" answer.) If the answer is not connected to the question, it is possible that the answer will be considered an indication of inattentiveness.

Another interesting observation is that at all times, it seems that the teacher only seeks correct responses (an explanation for calling on student volunteers). This is consistent with Goffman's (1967) analysis of face-saving in interactional encounters. This observation recognizes the need for all in an interaction (students and teachers) to save-face while accomplishing lessons. This may account, in part, for teachers being reluctant to call on students who are not soliciting a turn-at-talk.

4.54 Validity of Rules

The rules and responsibilities identified for listening and responding in the classroom were generated from the data collected. These data bases were: teacher statements during the lesson; repeated practices in the observed lessons; and confirmation of rules through interviews with the participants. The rules listed were those which operated in all three settings. There were others that were only utilized in one setting. As one instance of the teacher's rule explanation, we provide the following list of rules promulgated and instances substantiating the rules identified which were presented during the first hour that the teacher met with the second grade class on her first day of the school year.

Rules Operant During Talking-About Time*

A. Rules for Responding

1. Raise your hand

- "Some people want to say things and I want to hear everybody, but if everybody talks at once, then we can't hear anybody. So we'll raise our hand if we have something to say. Just like that beautiful girl over there is doing."
- "Raise your hand if you want to talk."
- "Don't talk unless you raise your hand."
- "If you have something to say, raise your hand."
- "She raised her hand, but I hear other people talking without permission."

2. Speak in a loud voice

- T: "So if you want a classroom to look neat, what else do you think you should do?"

  S: (inaudible)

  T: "Raise your hand...go ahead."

  S: (inaudible)

  T: "Hmmm?...speak loud."

3. Don't talk too much

- "You only have one mouth but you have two ears which means you should listen twice of what you talk. You should listen more than you talk and usually people do it the other way. They talk more than they listen."

*These episodic designations were not supplied during the videotaped session.

4. Volunteer to answer teacher's questions

-"Now you know how to pay attention because when I ask you a question, I want more people to answer, O.K?"

B. Rules for Listening

1. Sit correctly

-"That's not the way to sit when you listen. Sit up straight. The first thing, sit up straight. You have to pay attention. That's the first thing. Put your hands on the desk that nothing distracts you - you don't play with anything that's around you. That's the second way to distract yourself and then, of course, you don't interrupt, alright - so that other people that want to listen can listen."

-"Put your hands on your desk - push your chair in."

-"Mind your business. I don't want you to turn around anymore."

-"That's not a way of sitting, sweetheart. Carrie, that's not a way of sitting."

-"Don't do that, you're gonna fall."

2. Don't talk with peers during lesson

-"I gave you permission to go sharpen your pencil. I didn't give you permission to go to your friend and talk to her."

-"Excuse me. Somebody's talking, darling. Who wants to say something over there? You know he's trying to say something and some of you don't care. He's thinking. He's making an effort to answer what I asked and some of you don't even care. You're talking to your friends. What's the matter? He's important as you are when you answer something. We all want to hear what you say."

-"Are you going to be talking to her all the time?"

-"You are talking too much."

3. Follow the teacher's agenda

-T: "I really want you to hear that. She's gonna say it again, and she's gonna say it loud...because she really read my mind. Say it darling."

-T: (reading The Three Billy Goats Gruff) "Did the goats have any problems?"
S: "Yes."
T: "Yes, they did."
T: "What was the problem?"
S: "They couldn't eat the grass."
T: "Do you know why?"
S: "Because the troll was under the bridge."

T: "Oh no. The troll was under the bridge?" I haven't read anything about any troll. I don't see any troll here on the first page that I showed you or on the second page that I just read. You are not listening. You are remembering, but you are not listening to what I said. He was listening though - good boy."

-T: "I'm gonna give you some words that you should remember about the story, you're gonna write them down, you can color a picture of the part you liked best and I'm gonna lend you the book so that you can look at it and pass it to your friends. O.K.? and everybody's gonna see it for a minute."

S: "I don't want to draw."

T: "Um, excuse me. What did you say?"

S: "I don't want to draw."

T: "You don't tell me that. Will you please apologize."

S: "Sorry."

T: "That's better."

-T: "When we're reading words, darling, we don't get up to color. We pay attention for a few minutes."

4. No whistling

- "Who did the whistle? Don't do that. This is not a circus. Apologize."

- "Uh, I don't like that whistling. Who did it?"

Rules Operant During Copying Time

1. Write in a designated place

- "Open your notebooks to the first page that is available. In other words, don't open the notebook to any place - but the first place that is available. Remember that you are not supposed to waste paper. We're gonna write on both sides of the page."

2. Copy materials into notebook

- "One of your notebooks is gonna be for English. In that notebook you are gonna do vocabulary exercises, anything that I teach you - that I write on the board and say "copy that" you're gonna take your English (notebook) and copy in the English."

3. Work expeditiously

- "Some people told me they have an emergency to go to the bathroom. As soon as you're finished copying that, we'll all go. So get to work, show me that you are finished."

- "You should be getting to work because I see that most of you are not finished."

-"When he passes it to you, you look at it fast and you pass it to him, O.K.?"

4. Keep pace with your peers

-"I noticed that some of you still write very slowly. Don't worry too much about it. We're gonna do penmanship this year and you will pick up speed but for the time being, we really cannot wait. We cannot make the whole class wait for those of you who write very slowly. So what we'll do is that everybody is gonna put their things inside the desk...so then, if you're up to the last one, I'll let you finish; otherwise, put you notebook away and we'll go on to something else."

-"If I were you, I would get to work."

5. No talking while working

-"Shhh."

-"Kenneth, listen. You're very smart. You finished copying, but other people haven't finished. Don't talk to them. You'll distract their attention."

-"If you have finished (copying), you have no permission to talk."

It is important to notice the limited amount of information provided to help students respond during discussions. The complexity of the rules operant in such situations was never discussed during out observations. In fact, the rules presented on this first day are representative of the information presented throughout the school year concerning classroom organization and the facilitation of interaction among participants.

One statement was particularly remarkable:

> "You have one mouth but you have two ears which means you should listen twice of what you talk. You should listen more than you talk and usually people do it the other way. They talk more than they listen."

Our reason for spotlighting that comment relates to our analysis of frequencies of the categories of turns-at-talk we identified previously.

4.6 Turn-Taking Opportunities

The frequency of each turn-taking type occurring during one representative lesson may be identified in Table 4.1. This table reflects the frequencies students were given the opportunity to have the "floor" during the lesson presented in Figure 4.14. The differential nature of the types of turns allocated during each event is instructive. It suggests that discussion time is the principal opportunity to obtain a turn-at-

TABLE 4.1

FREQUENCY OF TURN-TAKING ACTIVITIES IN

DIFFERENT SEGMENTS OF ONE LESSON

Types of Turns	Copying		Discussion		Blackboard	Total
	# 1	# 2	# 1	# 2		
Teacher Imposed Turns						
Non-Bidding	1		1	13		15
Automatic Turn-Taking (Chorus)	1		2	2		3
Student Solicited Turns						
Bidding			21	15	6	42
Calling Out Responses			13	2		15
Calling Out Questions	4	3	2			9

talk. Approximately 80% of all turns were allocated during discussion time. 87% of those obtained at other times were solicited by the students who called out questions or bid for nomination. A similarly high percentage (89%) of students obtaining a turn-at-talk during discussion time solicited the turn.

From Table 4.2 we can see that the distinction between turn allocations imposed by the teacher and those solicited by the student particularly as influenced by the activity - provide important information. Students are much more likely to obtain a turn-at-talk if they volunteer than if they wait to be designated by the teacher, the teacher's rule cited previously notwithstanding.

The differences identified in the turn-taking rules discussed, suggest that it is clearly easier to be called on by the teacher than to claim a turn or bid for nomination. As indicated in the rules since teachers usually provide rules about teacher imposed turns, and about bids for nominations, more students are likely to know how to function in teacher-imposed turn situations than at soliciting turns themselves. However, student-solicited turns predominated in the classroom interactions we observed. Understandably student turns-at-talk are more likely to be allocated to the more aggressive student who bids for nomination or who calls out a response at an acceptable juncture.

Some students almost never seem to obtain a turn-at-talk whereas others are provided multiple opportunities during a given lesson. Not only is there a quantitative difference among students, but there is a qualitative difference in the types of turns accorded students, the students who will be offered turn-holders, and the comments accompanying student responses. All of these differences influence the student's actions and may be interpreted to reflect the student's reactions.

In analyzing the episodes in which specific turn-taking types occurred, we noticed that not only were specific turns more likely to occur in one setting than another, but also within settings, there was a systematic use of turn-types which differed based on the timing of the turns within the episode (i.e. at the beginning of the discussion or later) and the sequencing of episodes within a lesson. Table 4.? presents the information visually.

TABLE 4.2

LESSON SEQUENCES AND STUDENT-TEACHER INTERACTION TYPES

Representative Turn-Types	Discussion		Getting Ready	Independent Activity-Copying	New Activity within Lesson
	Beginning	Later			
Teacher Imposed					
Turns					
Non-bidding		XX			
Automatic Turn-Taking-Chorus	XX				XX
Student Solicited					
Turns					
Bidding for Nomination	XX	X			
Claims for Turns					
Calling out Responses		XX			
Calling out Questions	X	X	X	XX	

XX = Greater Frequency of Use

The beginning of a discussion is characterized by chorus responses and bids for nomination. A later segment of a discussion may be identified by its frequent use of teacher imposed turns on non-bidding students (providing for the inclusion of previously non-volunteering students) and students claiming turns by calling out responses.

When a new activity is initiated in the course of a lesson, the teacher frequently imposes a chorus turn to reconstitute the group's joint focus on a new activity.

Calling out questions occurs most frequently when the teacher has assigned an independent activity. The students find a need to verify their actions. The teacher facilitates students individual progress by responding to these inquiries. These characterizations are similar for each class across languages, as will be seen in the next section.

In this analysis of turn-taking in bilingual classrooms, we have observed similar types of turn-taking opportunities as those identified by Mehan, and Cahir and Kovac. However, we have also found important differences in the rules which were made most apparent by the ethnographic analysis sensitive to the changing contexts of the lesson. We have seen the strategies used by these teachers which may be particularly useful in a bilingual setting, such as the use of chorus responses. We have also noted the problems students have in functioning in the classroom, including knowing how to respond once they have obtained a turn-at-talk. It is possible these difficulties are more apparent in a bilingual setting, or that they are limited to bilingual settings. More importantly, however, we have been studying classroom functioning with the belief that effective classroom interaction results in increased learning.

4.61 Across Languages and Grade Levels

We distinguished between Teacher Imposed Turns and Student Solicited Turns when characterizing the nature of opportunities presented for students to obtain turns-at-talk during lessons. These categories are helpful in analyzing the differences across lessons, languages and grades.

We compared the mean frequency of turn-types in nine lessons (three in each class observed representing the beginning, middle, and end of year lessons). In Table 4.3 we note the decreasing frequency of turns as

TABLE 4.3

MEAN FREQUENCY OF TURN-TYPES BY
GRADE IN THREE LESSONS

Turn-Types	Kindergarten	Second Grade	Fifth Grade
Teacher Imposed			
Non-bidding	21	6	9
Automatic Turn-Taking			
Chorus	50	18	3
Round Robin	7	0	0
Student Solicited			
Bidding	14	24	18
Claiming			
Calling Out Responses	11	13	9
Calling Out Questions	8	8	5
Mean Total Turns	111	69	44

grade level increases while (111 in kindergarten compared with 44 in fifth grade) the amount of time allocated to one lesson increases. We also noted the changing focus on turn allocation. Whereas in the kindergarten most turns are obtained through teacher imposition, by fifth grade we see that only one-fourth of turns are obtained in this way. The increasing importance of soliciting a bid or claiming a turn is apparent in the upper grades if a student wishes to participate in the turn-taking during a lesson. These numbers are representative of lessons conducted in both languages. By averaging the numbers, we have provided for the differences across lessons wherein some activities permit greater opportunities for turn-taking than others.

As we conducted this analysis we were struck by the greater frequency of particular students obtaining turns in contrast to others in the group. We found that a few students were responsible for the preponderance of student solicited turns, and a subset of these were allocated most of the claims for turns-at-talk. This suggested to us that only a few students obtained turns by soliciting them - and this finding was constant across language contexts with rare exceptions. Thus, a student who was successful at obtaining a turn-at-talk through bidding, for example, was equally likely to display this in a Spanish lesson or an English lesson. On the other hand, a student who did not obtain a turn through solicitation in his or her native language, was likely to follow the same in his or her second language. This was interpreted to mean that he was not displaying behavior appropriate for this type. of turn allocation which were the same in both languages. It seemed that the student was not limited by the language as much as by the knowledge of the rules for turn-taking.

A native English speaking student who was frequently obtaining turns during English lessons by calling out responses, was successful in Spanish lessons as well. This finding suggests that this student used his knowledge of the rules to obtain a turn, across language contexts. Thus, student participation in classroom interaction across language contexts seems to be facilitated by the knowledge acquired in one language and adapted to the new setting. It is not only the case that there are different opportunities for students to participate in turn-taking activities that is of concern. The different ways in which

teachers react to students during the school day deserve attention.

Teachers respond to students in different ways. For example, let's look at an incident which occurred during the discussion of students' homework which was to find a definition of the word slavery (53). Ms. Two called on a student, Christian. While he is reading his definition, she is looking in her dictionary. When he finishes, she does not comment to him, but reads from her dictionary. Then, she calls on Tele (who has been identified as "always" having the homework). Tele is praised for her "beautiful definition" and is asked to read it to the class from the front of the room. The effect of this interchange is impossible to quantify. However, its impact on the verbal interactants as well as the auditors seems to be far reaching. The students recognize teacher partiality and accept their prestige or lowly status.

Some students seem to only receive negative feedback concerning their participation. Janet is such a person. For example, Janet, in response to Ms. Two's question concerning the topics to be reviewed in preparation for an impending science test, suggests insects. Ms. Two rejects this, saying "No, no because that's the last thing we did." Thus, it is not the case that the answer was incorrect in that it is one topic to be reviewed. It is merely that she has predetermined without informing the class, that the first topic to be identified should be the topic studied most distantly in time. Thus, although she explains her reasons for rejecting Janet's suggestion, it is preceded by a double negative, emphasizing a negative attitude toward the response. This differential treatment of student participation seems important to pursue as it influences students' subsequent participation.

(53) T: How many people found slavery in the dictionary?
Ss: (Raising hands)
T: Tele, very nice as usual. Who else? Christian, you found it? Very good. I'm going to ask you today because you don't usually give it to us. Um, who else found it?
Raise your hand.
I want to know how many people looked in the dictionary.
Robert, you found it too? Michael, very good.
Alright.
Let's hear Christian - what he has to say.
Read it Christian.
C: "The practice of owning a slave."

T: (reading from the dictionary) Alright. "The practice of owning, buying, selling and owning slaves." I have here - Tele, what did you find?

Tel: "The condition of being a slave. Before the Civil War most black people in the U.S. lived in slavery."

T: That's beautiful. I would like you to come up to the front and I want the rest of the class to be very quiet because she has a beautiful definition and I want you to all hear it. Come here, darling.

Teacher Identification of Acceptable Behaviors. Teachers identify acceptable behaviors through many forms. As one approach they model acceptable behavior themselves as in (54), (55), (56), (57) and (58).

(54) Teacher listens to student's response
(55) Teacher folds hands on her lap and sits looking at the group waiting for them to sit in a similar fashion.
(56) Teacher puts away one book and takes out a different one.
(57) Teacher places her finger on her lips
(58) Teacher silently stares at students not meeting expectation.

They also use other students as models by commending their behavior in a loud tone of voice used to address the entire class as in (59) and (60).

(59) I can see Michael is sitting nicely.
(60) Very few people are ready. Tele is.

Students whose names are not called, frequently look around at those whose names are called to compare behaviors and determine how they are different since their names were not called. This suggests that students are desirous of meeting expectations and being verbally rewarded for their actions. As evidence of this assumption students will often ask (aloud or to themselves) as a kindergarten student did in (61) on hearing (59) above:

(61) What about me?

They seek acknowledgement of their actions. Negative models are also cited as discussed in the incident with Janet above.

When teachers monitor student behavior throughout the lesson in the belief that this will facilitate the structural component, they are sometimes more subtle than at other times with their comments, as in some of the instances listed below:

(62) Who can tell me without yelling?
(63) Stop.
(64) Raise your hand if you can think of two words that are opposite.
(65) Think of it first, then raise your hand.
(66) Me, me I don't know.
(67) It doesn't seem like we're gonna have time enough to play.
(68) Oh, I think there's a lot of people in pain. Oh, we're gonna have to wait. We're gonna have to call the doctor.
(69) Chad, where are you going?
(70) Lisette, did I call you for any reason?

When working with large numbers of students, one seeks methods of ascertaining compliance with requests through such means as the use of appropriate textual materials and appropriate physical demeanor. A clear example of this is evidenced in (71), (72), and (73).

(71) Put your (math) book away.
(72) Take out your English notebook.
(73) If you have any crayons, bring them back.

Physical demeanor is checked by the teacher's constant movement in the room requiring constant pupil adjustment to have face-to-face interaction or eye contact with the teacher. At other times, the teacher will inquire:

(74) What are you doing Ruben? (to student who is using his desk as a support for doing push-ups)

More oblique statements which suggest that all students are to follow the model set by others are utilized as well.

(75) Very few people are ready. Tele is. Ruben is.

We find these same patterns persisting throughout lessons. The range of styles is impressive across teachers. Some teachers monitor student behavior more than others. They monitor verbally and non-verbally. Some seem to devote a great deal of time, even during the lesson, attending to student behavior and other organizational concerns to the exclusion of content, whereas others seem to devote less attention to these concerns. The result in classroom organization seems clear. The more the teacher "rides herd" the more the students seem to be meeting her original or modified expectations. The less the teacher monitors, the more disparate the student actions. However, the payoff for this difference as it might influence learning is not evident from our study. and it would be inappropriate to make any such inferences from these data.

4.62 Seemingly Aberrant Cases Which Actually Demonstrate the Rule

We have now accounted for the behaviors displayed across languages and grades by most of the participants. However, we need to attend to those repeated differences evidenced by specific individuals. We first will look at Jose and Jean both native speakers of Spanish who serve as two instances of students who display actions which are different from most of the other students. Then we'll consider Frank.

Jean repeated the second grade during the year we videotaped. She gave evidence of understanding both languages that were used in the classroom. When interviewed about the rules operant during taped segments, her explanations were consistent with her peers and her teacher. This confirmed for us that she recognized the different segments of a lesson and the interludes between lessons. However, she did not adhere to these rules during the lessons we observed.

When the class was Getting Ready for English, Jean was still working on the previous activity. When students were copying information into their English notebooks, Jean opened her Math notebook and continued Math work. At the times when students were being nominated by the teacher to respond Jean called out answers.

During an episode of Checking-at-the-Blackboard for which Jean successfully bid for and obtained a turn, she did not present evidence of knowing the procedure for filling in the answers. This caused a marked delay in the lesson, but the teacher allowed Jean to retain the turn she sought, providing considerable attention with the entire class as observers. It seemed to us that Jean was adept at manipulating the rules to her own advantage, in which she obtained considerable individual attention from the teacher. At other times she was observed in other displays not getting a turn: soliciting a turn just after the teacher selected the next speaker; or soliciting a turn at the time when others were, but only displaying some of the essential behaviors. She raised her hand, oriented her body to the teacher, but refrained from facing the teacher - these actions never result in a turn-at-talk. Recognizing the difference between her successful and unsuccessful attempts, it is possible to suggest she was deliberately using her knowledge to present the superficial appearance of seeking a turn while not actually implementing all of the components simultaneously

to obtain the turn, successfully.

Jose was another interesting student but very different from Jean. Although Spanish was identified as Jose's native language having recently arrived in New York, there was no difference in his actions during lessons conducted in English or Spanish. Part of this might be attributed to his seating. He was placed at a desk which was pushed close to the chalk ledge on the front blackboard and approximately three feet from the teacher's desk. There were no other student desks in this location. Thus, when the teacher wrote on the board he had no difficulty seeing the writing, but at all other times, he turned around to physically orient to the teacher, as the other students were doing. However, facing in this direction caused him to face his peers, which no other student did. Jose made eye contact with them and clowned around some. His turning around therefore was negatively sanctioned - but it seems that the positioning of his desk automatically created a double bind. If he didn't watch the teacher and his peers, he would not know what to do. This experience was the same across languages. To facilitate his classroom functioning the teacher would attend to him individually - but as in Jean's instance - with the rest of the class as audience. He did not participate in turn-taking unless specifically called on, which was rare.

Thus, Jose did not display highly differentiated behaviors across segments of lessons or across lessons. Rather, he generally remained silent with infrequent facial movements displayed to peers. He could be observed at times rocking on his chair or wandering about the room. When he walks, he is generally ignored. Probably Jose did not know very much about turn-taking behaviors. He did not have a highly differentiated system. He seemed to know the basic rule for listening - which was effective for some students who were part of the crowd within the rows. However, Jose was ostracized and his lack of familiarity with the rules was apparent to all. We observed the following episode in a Spanish lesson:

> The topic under discussion was masculine (el) and feminine (la) articles. The teacher directs a question to Jose: "Galena - el or la?"
>
> Jose does not respond although he visually attends to her. The teacher repeats the question in Spanish: «Como se dice el galena o la galena?» To emphasize the importance of

others remaining quiet, she says "shhh". One student shouts out, "You said it already." The teacher replies, "So" and shrugs her shoulders. Jose responds, «La» Teacher responds, «Muy bien.»

It is possible that Jose's self-concept was being denigrated by the teacher asking him a question that already was answered. It was not that he didn't know the answer, but rather he was reluctant to respond to a question that had already been answered - diminishing the value of his response - and perhaps interpreted as his only being able to answer a question already answered - a strategy restricted to very few students. This interpretation is a demoralizing one - one which most individuals would not choose to participate in. Perhaps in a classroom this is evidenced in part by students electing limited participation in the turns-at-talk.

We have no instances in which Jose is helped to understand how to participate in these classroom rituals but we do see him participating in chorus answers. Rather, consistent with the rules communicated on the very first day of the semester, when he is instructed to be quiet, he is quiet. For a seven-year old to be required to remain quiet for 6½ hours each day seems inhumane. If he had access to the knowledge required for obtaining turns-at-talk, he might not be quiet for that duration. But he does not display this knowledge from the evidence presented in the videotapes of the lessons. More importantly, he does not seem to consider it important to participate in the lesson - a basic responsibility implicit in classroom organization - but seemingly imposed differently among students. It seems in many subtle ways some are encouraged and others are not.

These two instances, Jean and Jose, provide evidence of a vast range of possibilities of student participation in turn-taking rules. Jean was so familiar with the rules that she was able to violate them.

Vygotsky (1962) would identify this as the third stage in a three-stage development.

Stage 1: The function (classroom participation) is acquired in an undifferentiated form.

Stage 2: The function is gradually differentiated

Stage 3: The function becomes available for deliberate and conscious exploitation

Jose's actions, on the other hand, would suggest a Stage 1 label. The issue of whether he knows the procedures and chose not to participate is critical in determining the reasons for his actions - was his participation not valued - and therefore restricted - or was it limited access to the rules? If the latter was the case, his learning in this regard was not facilitated - which may be used to support the former position.

In contrast to Jose and Jean we observed Frank who was an eager participant in discussions and frequently received the turn-at-talk he solicited and claimed. In counting the number of instances each student obtained a turn, Frank by far obtained the greatest number being allocated by the teacher, indicating his adeptness at the rule game. However, the problem this child experienced by his participation was in part identified when the teacher would occasionally tell him he had "to give others a chance, you can't be talking all of the time."

The teacher identified this student as hyperactive - demanding an inordinate amount of time. Frank, on the other hand, believed he was following the rules of the game, by actively participating in class discussions. Thus, the conflict in interpretations can be critical.

These findings may be summarized as follows:

Student participation is negotiated, as are other aspects of the classroom. The opportunities are influenced by knowledge of the rules, the number of possible participants, and the value of the student participation (by teacher, student and peers).

1. Teachers infrequently provide explicit information on obtaining turns-at-talk as one instance of classroom functioning behavior. They differentially foster student participation.
2. Students are not displaying equal use of the rules.
3. Teachers can facilitate equal participation of all students, an especially important concern if students are to:
    a. learn the rules
    b. use language to increase their understanding and the understanding of their peers
    c. increase student self-concept

If classroom functional competence or interactive competence requires participation in all aspects of lessons, the teachers need to negotiate environments that facilitate equal student participation in lessons.

Teachers, in concert with students, create an image of each student's importance to the functioning of the classroom. This may be evidenced by the student's contributions to class discussions, which are also negotiated. Participation is simultaneously evidenced and influenced by the teacher's facilitation of student participation in the classroom (e.g. student solicited and teacher imposed turn-taking).

The student's self-concept (of his/her importance to classroom functioning) evolves from multiple sources including: previous school experiences; peers; parental attitudes; and previous experiences with the particular teacher assigned to that class activity. All of these contribute to the student's self-concept which is constantly subject to revision since it is a result of the dynamic interaction among people. Therefore, this self-concept - and resulting value placed by others, is subject to the influence of all of the interactants' displays or actions. We provide a summary of these findings in the next section.

Section 5. Conclusions, Hypotheses and Implications

An analysis of our data resulted in conclusions, and hypotheses, which have implications for research and for teaching. First we will summarize the findings, and discuss the conclusions and hypotheses emerging from the data.

5.1 Conclusions

The conclusions are grouped in four categories: Classroom Organization; Bilingual Classes; Individual Differences, and Research Design.

Classroom Organization

1. Bilingual classes are organized into "lesson" time and "getting ready" for lesson time.
2. Students display classroom communicative competence in these bilingual classrooms by participating in the negotiation of classroom events including turn-taking; accomplishing lessons; and organizing lessons. Students in bilingual classrooms who are considered communicatively competent display a range of behaviors including:
   - recognizing there are times when there are lessons, and times when they are getting ready for lessons;
   - participating in the negotiation of activities;
   - recognizing that lessons are comprised of episodes having different, but systematic and interactive rules, responsibilities, language styles and physical displays which are often not linearly ordered;
   - recognizing that lessons in both languages entail similar, systematic, interactive rules, responsibilities, language styles and physical displays.
   - recognizing that allocation of turns-at-talk may be Teacher Imposed or Student Solicited;
   - recognizing the systematic, interactive nature of classroom events;
   - recognizing the opportunities for obtaining a turn-at-talk.
3. Classroom organizations are negotiated, e.g. Teachers in concert with students pace movement of activities; Turns-at-talk are allocated through a complex, interactive negotiation process involving the students and the teacher.

4. Classroom lessons in the bilingual classes we studied are predictably patterned. These are organized by verbal and visual displays. A lesson is typically comprised of several episodes all related to the same objective, but each identified by distinct verbal products, visual displays and rules thereby distinguishing episodes within lessons. Representative activities include: Talking About Time; Copying Time and Checking-at-the Blackboard Time. These events are not necessarily linearly ordered.
5. Episodes conducted by the same teacher in Spanish or English entail the same systematic, interactive rules, responsibilities, language styles and visual displays, regardless of the language used.
6. Allocation of turns-at-talk in bilingual classrooms may be Teacher Imposed or Student Solicited.
7. Opportunities for turns-at-talk, whether Teacher Imposed or Student Solicited in bilingual classrooms are differentially allocated.
   - Turns-at-talk are systematically held for some;
   - Some are rarely included;
   - Some are allocated frequent turns but considered demanding of inordinate attention.
8. Participation procedures in bilingual classrooms are systematic.
9. To participate in bilingual class activities, interactants display different behaviors during these differing events (e.g. episodes; lessons; turn-allocation opportunities).
10. Bilingual maintenance classes facilitate student learning of these classroom communicative competencies through systematic practices across languages.

Bilingual Classes

1. In the bilingual (Spanish/English) classrooms we studied, the classroom organizations remained constant across the language contexts. Similar episodes appeared in both languages.
2. The different types of participating behaviors (ranging from auditing to soliciting turns) are present in episodes across languages.

3. Similar types of turns-at-talk are available across language contexts.

Individual Differences

1. The quantity and quality of classroom participation of individual students varies.

Research Design

1. Through a holistic, interactional ethnographic analysis it is possible to understand the nature of classrooms and the nature of classroom communicative competence.

5.2 Hypotheses

Hypotheses generated from our findings are far reaching, and are grouped in five categories: Classroom Organization; Bilingual Classrooms; Individual Differences - Students; Individual Differences - Teachers; and Learning.

Classroom Organization

1. Bilingual classrooms are organized similar to monolingual classrooms.
2. Classroom interactants who are aware of the factors contributing to classroom communicative competence may become more efficient interactants.
3. A student's relative importance to the classroom functioning may be discerened by identifying the quantity and quality of the turns allocated to each individual.
4. Secondary level and university classrooms are organized similar to elementary classrooms.

Bilingual Classrooms

1. Teachers in bilingual classrooms may use strategies not typically found in monolingual settings.
2. Participation in a bilingual classroom may permit students the opportunity to become conscious of the lengthy and exacting process of increasing language facility.
3. Differences in student participation are particularly evident in bilingual settings where students display behaviors related in part to their language fluencies, which may influence the quantity and quality of their participation in specific classroom events.

4. Participation in bilingual maintenance programs may promote an increased awareness on each participant's part, of success in language, and thereby learning abilities in general.
5. Participating in bilingual maintenance programs may dissipate tensions, promoting a harmonious atmosphere in the classroom and the school.

Individual Differences - Students

1. Individual students, across language contexts, interact differently, thereby differentially contributing to the accomplishment of lessons.
2. Teachers systematically differentiate among participants as evidenced by their allocation of turns-at-talk.
3. Student growth may be monitored by noting their participation in both their fluent and their less familiar languages, ranging from auditing, to accepting a teacher-imposed turn, to soliciting a turn-at-talk.
4. A student's relative importance to the classroom functioning may be negotiated by the student in interaction with peers and the teacher, as evidenced by obtaining turns-at-talk.

Individual Differences - Teachers

1. Teachers negotiate the activities in classrooms differently.
2. Teachers allocate turn-taking opportunities differently.
3. Teachers may allocate turns based on student's racial background, ethnic background and/or social class.
4. The frequency and duration of loops, or interruptions, or getting ready time may correspond inversely with the quantity and quality of instruction.

Learning

1. Teachers who devote extensive time on organizational issues (as obtaining a joint focus) limit the amount of class time devoted to concept development.
2. Some turns-at-talk are more valuable in increasing understanding than others.

3. Students fluent in one language utilize the formats acquired through participating in activities conducted in their fluent language in bilingual maintenance programs to facilitate participation in lessons conducted in their less fluent language.
4. Learning occurs at all times during the day, i.e., during "lessons" and during "getting ready" time.
5. Participation in turn-taking activities contributes to learning.

5.3 Discussion of Conclusions and Hypotheses

Students display classroom competence by participating in the negotiation of classroom events such as: turn-taking; achieving lessons; and moving from one activity to another. Differences in student participation are particularly evident in bilingual settings where students display behaviors related, in part, to their language fluencies, which may influence the quantity and quality of their participation in specific classroom events. Individual students, across language contexts, interact differently, thereby differentially contributing to the achievement of lessons. Through a holistic, interactional analysis, it is possible to understand the nature of classrooms, and the nature of classroom competence.

5.31 Classroom Organization

Classroom organizations are negotiated (Section 4.3)

(1) Teachers, in concert with students, pace the movement of activities.

(2) Turns-at-talk are allocated through a complex negotiation process involving the teacher and the students.

(3) A student's relative importance to the classroom functioning both on a macro-analysis and a micro-analysis may be negotiated by the student interacting with peers and the teacher in obtaining a turn-at-talk.

Classroom activities are predictably patterned (Section 4.4).

(1) Lessons are viewed as the major activity of classes. These are organized by verbal and visual displays distinguishing lessons from other activities. Rules operant during lessons are different from those during other times.

(2) A lesson is typically comprised of several episodes, all related to the same objective, but each identified by distinct verbal products, visual displays and rules thereby distinguishing episodes within lessons. Representative activities include: Talking-About Time; Copying Time; and Checking-at-the-Blackboard Time.

Teachers negotiate the organizations of the classrooms (Sections 4.4 and 4.5). They may allocate time for lessons, activities within lessons, and turn-taking opportunities differently. However, the three classrooms we observed all incorporated these in their school day. Thus, the general structure of the school day was predictable. That, in part, is what permits us to distinguish "school" activities from "out of school" activities. Thus, the patterns and negotiations convey both the similarities and the differences across grades and teachers. The bilingual experience however, presents some additional important perspectives on classrooms.

5.32 The Bilingual Experience

Classroom organizations remained the same across language contexts (Sections 4.45 and 4.61). Thus, we observed teachers and students in lessons conducted in Spanish, and those conducted in English negotiating the pacing, the turn-allocations and the importance of individual students. We also saw the same patterns of lesson organization with multiple episodes and provisions for turn-taking. Similar episodes (e.g. Talking-About; Copying) appeared in both languages. Similar provisions for turns-at-talk (i.e. Teacher Imposed Turns and Student Solicited Turns) were utilized in classes using both languages. (i.e. English during one lesson, Spanish during another; or translating Spanish into English during 'Spanish' lessons).

(1) Students fluent in one language are able to utilize the formats they have learned in their fluent language in the lessons conducted in their less fluent language.

(2) This is instrumental in facilitating student participation in lessons conducted in their less fluent language since they have successfully understood similar activities using their fluent language.

The different types of participating behaviors (from auditing to accepting teacher-imposed turns, to soliciting turns) are present in all episodes across languages (Section 4.5).

(1) Thus it is possible for a student to solicit a turn in his/her native language while increasing in participation between auditing and soliciting in the less familiar language.

(2) This increasing ability may be monitored as evidence of growth.

Teachers display some practices, however which are different from those typically reported in monolingual classrooms (Section (4.541).

(1) These include the provision for a large number of Teacher-imposed chorus responses in classroom discussions. This provides the opportunity for students to practice producing language while in a crowd, obviating the possibility of ridicule for a different accent or incorrect phraseology.

(2) In addition, they frequently verify that students individually are following the lesson by a variety of means including assigning independent activities.

Participation in a bilingual classroom fosters a humane attitude among the participants (Section 4.5).

(1) Since all students in this bilingual program for one-half of the day are placed in an environment in which they are less comfortable, there is an important respect and understanding for peers when placed in a similar situation. Instead of developing a smug attitude derived from their (accidental, due to birth only) placement in a more dominant language background. Thus it serves to humble all of the students in their appreciation of the lengthy and exacting process of increasing language facility.

(2) This understanding also promotes an increased awareness on each individual's part, of success in learning, and thereby of learning abilities in general.

(3) By ensuring that approximately one-half of the day's activities are conducted in each student's more fluent language, tension is dissipated from the pressure to utilize all environmental cues to make sense of the ac-

tivities in their less fluent language. This promotes a more harmonious atmosphere in the classroom, which permeates throughout the entire school.

(4) Thus by providing two different language contexts for learning with same peer group and same adult/leader, students are functioning more proficiently in one than the other. The one in which they excel establishes the basis for their achievement in the other context - while concurrently, implicitly validating their belief in their own ability to learn, thereby maintaining their self-esteem. Throughout the day students expect one, or another, to excel, or to require additional assistance, which is totally comprehensible in their environment.

5.33 Students as Individuals

A class is comprised typically of students and a teacher. Considering them as a group facilitates some discussions, and probably is a prudent approach for "getting through the day" (Cazden, 1979), as a teacher. For when we have the opportunity to study students as individuals, we notice not only their similarities, but their differences as well.

Frequency of Participation. With respect to the issues of classroom participation presented in an earlier section, we observed the frequency of participation of students in different lessons as determined by teacher imposed or student solicited turn-taking rules (Section 4.6).

(1) We found extreme differences among students. Some students never seem to get a turn-at-talk; some may never solicit nominations and may rarely be nominated by the teacher. Others may solicit nominations appropriately, but never seem to get a chance, and sit docilely in the classroom. In contrast, others seem to monopolize the discussions.

When we analyze the opportunities across language groups, we found similar types of turns available - but different students seemed to participate in the different language environments (Section 4.6). Thus, William, a Spanish monolingual student who recently arrived in New York from a South American country, initially successfully solicited turns-at-

talk only in Spanish lessons. As the year progressed, he displayed an increasing frequency of successful solicitations of turns in English.

(1) This finding suggests the importance of determining the equality in frequency of turns-at-talk for participants, especially across languages.

Qualitative Differences. Individual differences in the quality of turns-at-talk present another interesting facet of the dynamics of classroom interaction. Some students are only given turns at parroting a previous statement (the automatic turns which are imposed by the teacher). Others are given more creative opportunities requiring, for example, their integration of new information, or their presentation of personal experiences (Section 4.62).

(1) Participants may obtain different views of the importance of one particular individual's participation based on

(2) Related to this is the likelihood of one individual, in contrast to others, being appropriated additional time to consider a response (through the use of turn-holders). Again, these differences in treatment may be interpreted to mean one student's contributions are more important than anothers. Determining these differences was possible only through the ethnographic approach used in this study which will be the fourth area discussed.

5.34 Research Issues

The verbal accounts we originally transcribed conveyed only a partial truth. Although they were accurate, verbatim accounts of teacher and student utterances, they were deprived of their context, which is an essential component of any communicative event. Thus, although we recognize the utility of verbal transcripts for referring back to taped segments, an analysis limited to those - or any transcripts - would not provide a valid representation of the event.

It is only through the multiple, interactive levels of analysis characteristic of ethnography, that we were able to arrive at the important findings we presented here. Ver-

bal transcripts in concert with the visual record on videotape or motion picture film provide the data base essential for those analyses (Section 3).

(1) Hypotheses generated from a study of transcripts may be explored through an interactive analysis of videorecord and verbal transcript.

5.4 Implications

These findings also have implications for educational practices, and for research, which we discuss now.

5.41 Implications for Educational Practice

Although the findings of this study are based on a study of three bilingual classrooms in one bilingual school, we believe there are implications for other classrooms (monolingual and bilingual) from the findings because of the representative nature of the broad issues discussed, in part based on the defining issue of a classroom lesson (i.e. joint focus among participants for an extended time period).

Using the same issues identified in reporting the conclusions, we discuss potential implications for teaching

1. Techniques for obtaining and maintaining a joint focus should be a concern of teacher educators and school supervisors in preparing bilingual teachers. Procedural organization is seen as a necessary prerequisite to obtaining joint focus for conducting a lesson. Student teachers are initially concerned with "controlling" the class. Often administrators categorize classrooms with few discipline problems as "good" classes. The need for obtaining a joint focus is viewed as preliminary to organized lessons for learning concepts and skills. Since this concern for organization is so pervasive, teachers should be knowledgeable about the functioning of classrooms - particularly as they can be perceived as differentiated, but structured episodes with differentiated rules and responsibilities, intimately related to these episodes. The negotiation by the interactants of the nature of these episodes, rules and responsibilities provides an insightful approach to analyzing these events. The understanding derived from the analysis will provide a basis for the teacher's conscious rule knowledge which may be conveyed to the students, thereby facilitating classroom management.

2. Bilingual teachers should understand the complex nature of classroom organization. Responsibilities differ during episodes, lessons and school days. The rules operating during each episode should be more apparent to the teacher who thereby, is able to present them more explicitly and consciously to the students. This may facilitate the students' learning of the rules and their functioning in the classroom. Knowledge of the rules whould be helpful for many reasons in-

cluding:

- reducing time repairing the interactions;
- obtaining mutually agreed on (negotiated) interpretations of events, rules and responsibilties;
- reflecting on the implications of differences occurring within interactions as evidenced by physical displays and verbal interchanges.

Once the participants are equally knowledgeable about the "rules of the game" then the game can be played in earnest, i.e. learning can then become the focus of attention instead of the rules which function to permit learning to occur.

3. The systematic study of organizational issues may provide more time for focusing on learning concepts. The major focus in school needs to be on learning rather than on procedures. The latter seems to occupy most of the attention of students and teachers, to the neglect of the former. By knowing the rules, one is freed to use these rules, to manipulate them and to determine how they can be instrumental in obtaining goals. For example, knowledge of the structure of lessons and classroom interactions during specific episodes provides the basis for knowing both what is likely to occur next and how to loop into different activities which might be an elaboration on the original content or digression from the original focus.

Both teachers and students need to understand the system in order to use the structure to facilitate their objectives, which presumably may be described as increasing understanding of concepts, of life, of people, of the universe. Knowledge of the rules of one structure (i.e. one given classroom) may provide the possibility for going beyond the one setting - in search of understanding more worldly issues.

On a more basic level, understanding the nature of lessons as operating on a joint focus, and the negotiation procedures used to obtain this (e.g. monitoring, pacing, tracking), teachers may become more effective in organizing classrooms for interactions about concepts and issues.

4. Bilingual teachers need to recognize the negotiated, interactive nature of classroom activities. Recognizing the negotiated nature of classroom organizations, teachers need to respond to their

students' actions, acknowledging the interactive nature of the establishment of such issues in organizing classrooms as the pacing of events and the allocations of turns-at-talk. This recognition requires an accommodation to students, by monitoring their progress in activities and recognizing the differentiated nature of their rule understanding. In such monitoring processes, teachers would acknowledge student achievement and provide guidance to facilitate their understanding of the complex nature of turn allocation procedures, for example.

5. Teachers may productively examine their own behaviors and reflect on their contribution to each student's self-concept through their turn allocation practices. They can determine differences including the following: which students seem to obtain turns more often; which students seem to volunteer but don't get a turn; which students don't seem to volunteer to participate; which students monopolize discussions; and which students are allocated more "difficult" questions. Answers to these questions may provide insight into the student's perception of himself/herself as a classroom participant.

6. The attitudes of participants in the classroom interactions need to be understood and discussed. Our findings concerning the influence of the bilingual setting on classroom atmosphere suggest the importance of discussing the attitudes of the participants in each classroom to the changing language environment. Particularly encouraging their verbalization of their personal differences in the changing settings and the implications of these for their peers would be valuable in promoting such important concerns as: increased awareness of others' feelings; increased awareness of one's achievements in the learning; and increased believ in one's own abilities.

7. Some of the strategies used by teachers and students to facilitate second language learning are evident in our data. These includ: providing predictable organizational structures which facilitate the association of repeated language with repeated events; providing rich environments for learning in which language is used to achieve an objective, as learning about the water cycle; providing a support structure of a more mature form for language play in the guise of chorus responses (this activity permits the student to practice pronunciation

in a group, and hearing the target pronunciation, attempts to match it without being subject to ridicule for mispronunciation). The use of diagrams and other illustrative materials also provides a rich environment for the language learner.

8. Individual participants create their own interpretations of activities and events which need to be monitored for consensus to be achieved on what a lesson accomplished. The data may be interpreted in a multitude of ways with each participant (teachers and students) at a given time representing one spot on a continuum from a micro-analysis to macroanalysis. This suggests that the organization of activities, lessons, school days and years at school may be viewed by some as a forest to be understood by isolating and studying each element contributing to the forest's existence and studying their interdependencies. Others might only look at one tree perhaps never recognizing the other trees around it, the animals living in the tree, and other related issues. Thus, some might take each activity as an undifferentiated tree in a forest. Others might organize all the trees and group them according to some predetermined system. The latter might be more representative of a macroanalysis. The former, of a microanalysis.

It is possible that both contribute to understanding scenes. What we need to determine is that all classroom participants are able to display both types of interpretations of classroom events - especially to preclude the possibility of some "never seeing the forest for the trees".

Summary

In the process of language acquisition, a critical component is understanding the intent of messages conveyed in different contexts. This contextual constraint on interpreting messages is essential in attaining competence in functional language, which is particularly important for functioning appropriately in classrooms. Students' knowledge of the school rules is not innate. The acquisition of this information is obtained in part through participation in classrooms. Teachers have distinctive styles. Some classrooms provide assistance for students to learn the rules. The concern, then is dual, i.e., for

the listener to determine what is meant by what is said, and for the speaker to be sensitive to the listener's interpretation. Knowing the words does not insure understanding the pragmatic intent of the message.

From our analyses it seems there are specific rules the students need to follow. These include:

Knowing how to participate in the classroom "discussion"

Knowing how to present an image of a student who is following the lesson

Knowing how long the teacher will allow an activity to take

Knowing how to behave at times when transitioning

In essence, in a traditional classroom, the students are expected to convey a cooperative attitude in helping the teacher accomplish the lesson. They must match meanings with the teacher (determining the teacher's intent) and project the image that they are cooperating by conforming to the group's actions. Teachers must be aware of students' responses to these implicit expectations and accommodate differences in behaviors between themselves and their students.

The data present information representing teachers' sensitivity to knowledge of the rules as well as teachers' sensitivity to student understanding of specific content. When there is a breakdown in the rules teachers often provide verbal directives.

From our analysis, the following generalizations about classroom interactional competence are emerging:

There are systematic, rule-governed behaviors identifiable in traditional classroom interaction:

- teachers track student activities
- teachers utilize predictable approaches for obtaining consensus regarding the intent of their directives
- successful interaction requires sensitivity to linguistic and other cues

The acceptability of behaviors is determined by an interaction between the students and the teacher:

- students must perform tasks as designated by the teacher

students hold teachers accountable for conducting lessons

Teachers may facilitate student participation in class activities by becoming conscious and conveying this knowledge to their students of the rules, responsibilities, language styles and physical displays characterizing episodes and interactions.

Teachers may critically evaluate the classrooms they lead and determine their influence on student's performance/functioning in the classroom (e.g. student participation; student acquisition of classroom competence; and student's self-concept).

Bilingual classrooms provide the opportunity for earlier classroom participation for children with minority language fluency.

Bilingual classrooms as organized in the school we studied provide a humane environment for learning.

5.42 Implications for Research

We present our suggestions in two parts: one focusing on research possible with out data, the second on research requiring new data collection.

5.421 Further Analysis of Our Data. Our data are a rich mine of information collected in natural settings, that could be productively studied for insight into many additional, important educational issues. One major concern is the nature of classroom activities during times when there is no joint focus. We studied classroom lessons, which by definition occur only when there is a joint focus. However, there is a considerable amount of time (differing across classrooms studied) that is not representative of joint focus. Rather, students are frequently observed pursuing individual projects or individually completing assigned activities. To obtain a comprehensive understanding of the nature of functioning during classroom activities, an analysis parallel to that of the "lessons" we presented here is needed.

Our data provide representative instances of such activities across grades and languages. In furthering our attempt to understand the nature of student classroom competence, this important dimension

of the school day is in need of research. Published studies tend to focus on lessons, as does this one. The amount of time during which there are not lessons, however, is significant and in need of study.

Consistent with this concern, is the overriding concern for determining the curricular learning that is occurring - in contrast to the rules of the school game-type organization, we describe here. The activities we taped provide a rich data base for exploring evidence for learning through these activities, a project we strongly endorse for important insights into the educational or curricular accomplishments which co-occur with the accomplishment of lessons and/or the completion of a school day, school topic, or a school year. In essence, we would suggest searching for evidence to respond to questions such as: During the lesson on the water cycle, what did the students learn? What evidence is displayed which supports the conclusion? A qualitative analysis of some of the 15,000 hours students attend school would provide important insights into the content nature of schooling.

5.422 Studies Requiring Additional Data Collection. We studied bilingual classrooms which were organized to maintain bilingualism while following the same curriculum as monolingual students.

1. Studies of bilingual programs with other language goals (e.g. transitional programs and immersion programs) are needed to determine the differences and similarities evidenced in classroom competence.

2. Similarly, we need to study monolingual classrooms to compare the organization in these with the classrooms we studied.

3. The major responsibility of schools is for the education of youth for roles as responsible citizens. The nature of that educational process is in need of study. To conduct such a project it would be essential to develop measures which would provide information concerning the nature of student learning through participation in school activities. Using these measures on a pre-test and post-test basis, it would be possible to obtain baseline, qualitative data informing the nature of learning occurring in classrooms. These data would generate hypotheses which might then inform a major study of the nature of learning occurring in classrooms. This study should encompass monolingual and bilingual educational settings and cross-age

groupings.

4. Another issue requiring study is the nature of classroom organization in secondary schools (bilingual and monolingual). This study provides an effective format for such an investigation.

5. The relationship between classroom communicative competence as described here, and the comprehension of curriculuar concepts is in need of study. If classroom interaction encourages acquisition of knowledge, then educational equity could be facilitated by the knowledge of these issues.

6. Teacher strategies and other factors which facilitate student acquisition of increasingly differentiated classroon interaction procedures are in need of study.

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Appendix A: A Sequential Description of Analytical Procedures - by Dorothy Feola

Introduction

The following describes the sequence of analytical procedures undertaken in an attempt to "make sense" of the communicative competence displayed by students in this study. Deciding what to describe and how to describe proved challenging. The microanalysis of utterances initially attempted proved inadequate since it did not address our research questions. It wasn't until we completely reworked our way of observing the data that we saw emerge what we felt were significant patterns and relationships between verbal and physical characteristics of classroom interchanges.

I. Linguistic Analysis: Characterization of Utterances

Using verbal transcripts exclusively, a distinction was made between the types of work being done during each taped session. Work was labelled as either organizational or instructional. Organizational work (as in (1)) was characterized by utterances which were not content related. Instructional work was characterized by utterances which were content related (as in (2)).

Organizational Work	Instructional Work
(1) Alright, when you are finished put everything away (so) that I know you are finished. Put your hands on your desk and close your mouth.	(2) Who remembers what a synonym is?

This distinction proved problematic since most teacher utterances seem to imply organization as exemplified in (3).

Organizational/Instructional Work

(3) Who remembers what an insect is?

This utterance serves both to organize participation in an activity and to identify a new topic.

A distinction between utterances was determined by propositional content, pauses, and changes in turns-at-talk. Turns-at-talk were distinguished based on Mehan's (1979) work with classroom interchanges. He noted three distinct turns in an interchange sequence, namely: initiation, reply and evaluation. Let's look at (A), (B) and (C).

	Turns-at-talk	Utterances
A.	Initiation	T: Mad is a synonym of what?
	Reply	S: Angry
	Evaluation	T: Right
B.	Initiation	S_1: (pointing to work on board) Is that star, is that star like the stars in the sky?
	Reply	T: It doesn't say stars.
	Reply/Initiation	S_2: It says stares.
C.	Initiation	T: Do you know what it means (which)?
	Reply/Initiation	S: I know what it means.
	Initiation/Reply	T: Tell me Jean.
	Reply	S: I don't know which is my friend.
	Evaluation	T: Oh well, you should know. The sentence is correct but the meaning is wrong.

Examples B and C above exemplify the problems we encountered in attempting to code this data according to Mehan's imposed structure. Student replies were not always followed by teacher evaluations; often, initiations were indistinguishable from or followed replies. In addition, Mehan's structure did not account for student initiations and teacher replies. Also, when a student did initiate an interchange, there was rarely an evaluation by the student of the teacher's reply.

II. Linguistic Analysis: C-Act Analysis

Finding that a distinction between turns-at-talk, per se, did not prove significant to our research, we attempted to code each utterance using Dore's (1978) C-Act theory; examples (D), (E) and (F) help in this discussion.

	Code		Utterance
D.	RQAC	(Action requests seek the performance of an action by the hearer)	Please mark the pages (and) put your books away.

	Code		Utterance
E.	RQSU	(Suggestions recommend the performance of an action by hearer or speaker or both)	Let's write this
F.	RQPR		Who told you that dog and cat are opposites?

Example F exemplifies the type of problem we encountered when we tried to match utterances with Dore's codes as in (D) and (E). Example F has the form of a product question (RQPR) which, according to Dore, seeks information relative to most "WH" interrogative pronouns; however, the intonation of the utterance, combined with the teacher's facial expressions, physical stance and its relationship to surrounding dialogue, are unaccounted for in such a limited coding system.

Although this coding system easily identified utterance types, it did not characterize what was important for classroom functional competence. This coding system characterized the form of an utterance, but did not account for the rich nature of the function of an utterance within a verbal interchange.

III. Linguistic Analysis: Utterance Form and Function Identification

Working with Dore, we attempted to devise a coding system which was unique to our data, as was his. We attempted to capture both the form and function of each utterance, as exemplified in (G) and (H).

	Code	Form	Function	Utterance
G.	Com/F	Comment	Formulation	Let's review two things that we already know so that we can learn a new thing today.
H.	Com/D	Comment	Directive	Tell me something about homonyms.

This attempt proved problematic in that most teacher utterances may be seen as functioning as directives and to code every utterances as a comment in form did not help to clarify the questions we posed to these data.

IV. Linguistic Analysis: Modifications

Using utterance form and function, our coding system was modified so that it would adhere to a strict grammatical or lexical characterization of utterance forms, as in (I), (J) and (K).

	Form	Function	Utterance
I.	Interrogative	Solicitation	Who remembers what a synonym is?
J.	Declarative	Description	You have different meaning, different spelling, but same sound.
K.	Imperative	Directive	Somebody give me an example.

Once again, most teacher utterances could be seen as functioning as directives. In addition, to say that an utterance is declarative, interrogative or imperative in form did not capture the complexities of classroom communicative competence.

V. Linguistic Analysis: Further Modifications

Our coding system was modified once again to refine utterance classifications without concern for syntactic form of the utterances as in (L), (M), (N), (O) and (P).

	Form	Function	Utterance
L.	Imperative	Solicitation	Give me an example...
M.	Positive	Evaluation	Very good
N.	"Let's"	Formulation	Let's review with another example.
O.	"WH"	Solicitation	Who can say it better?
P.	Called Out	Answer	S: Mad

These coded examples, again, did not characterize classroom communicative competence. The question posed to the data deal with classroom communicative competence and the answers to that question did not seem to emerge from this purely linguistic and atomistic analysis.

VI. Holistic Analysis: Expansion of Database

Verbal transcripts isolated from their dynamic context did not contain enough information about communicative competence to enlighten our understanding of this process (see discussion in Section 3.25 of the need for an interactional analysis). In addition, our initial focus could be seen as taking a teacher's perspective rather than the interactants' perspectives (both teacher and student). What emerged from these realizations was a different type of analysis, one which was holistic in nature. We proceeded to analyze this data in a top down rather than bottom up manner.

Our data now included not only the verbal transcripts, but also the videotapes, field notes, and notes from student and teacher interviews. Using all of this information as our database, we were able to identify two distinct work events taking place during each taped session. One event comprised activities which served to move interactants from one lesson to another, this event was labelled, "Getting Ready." The second event observed as the "Lesson" itself which was comprised of several activities or episodes which we labelled, "Talking About," "Copying at Desks," and "Checking-at-the Blackboard."

Events and episodes were distinguished from one another based on: a) how they looked, b) the language used by interactants which clarified the type of work being done, c) field notes taken by researchers during tape sessions, and d) interactant interviews.

Events and episodes were comprised of sequences (not isolated utterances) of exchanges. We were able to identify four distinct types of sequences which were characterized by their contrast in language and behavior. (see Section 4 for further clarification). This level of analysis effectively provided us with an insightful approach in answering the questions we were posing to the data.

Appendix B: Some Issues in Transcribing - by Valerie Foerster

Transcription of videotapes is part of any descriptive or ethnographic study. When classrooms are the focus of the study, transcriptions double in complexity, for a teacher and numerous students are the camera's focus. A transcription is never synonymous with the videotape. It should, however, be as accurate as possible - as accurate as the words that attempt to fix in print an ongoing event. The best time to do the transcription is as soon after the taping as possible. However, a copy of the tape should be made first and the original used only to make additional copies, thereby preserving the quality of the original data. It is also good practice to have two people working together on the transcription. Not only does this additional person help in pressing the buttons to replay the tape segments, but also helps in "hearing" - and in discerning the taped utterances. The old saw that two heads are better than one holds true here.

One can not begin transcribing a tape by turning on the video-cassette recorder and recording what is said and done as a stenographer. The transcriber or transcribers like a detective or a prospector, need to get a feeling of "the lay of the land" - the entire context - before beginning. The best person to transcribe is a person who was present as an observer during the filming. The position of the camera may make it impossible for the viewer to see who is responding to a question, or what the teacher is doing over in the corner. A transcriber who was present at the filming can supply this additional information, and thus make the transcript more complete. Transcription is an exacting process necessitating quiet space and uninterrupted time.

Verbal Transcripts

Whether transcribing onto a form or lined paper, the written transcript, the form of which is determined by the research questions posed (see Edelsky, 1981, for a discussion of some important issues in this regard) should utilize the established format (e.g. student language; teacher language; counter number; teacher position). This will help the transcriber to remember to account for all the designated information and make the subsequent typing of the transcript much easier.

The steps include:

1) Note the number on the counter where the first episode is to be recorded.

2) Play a short segment of tape. Stop the tape. [Usually, conversational utterances are short, and even in classrooms, most are under thirty words. Thus most of a person's speech may be written down without continually stopping and replaying the section. However, the critical element is transcribing verbatim from the tape all utterances which will serve as a secondary, but less transitory data base. This will probably take numerous replayings.] It is important to playback a section after it has been transcribed, for often the transcriber's "ear" can change or delete words unconsciously. For example, the transcribed (1)

(1) the people who are going on the trip

could have really been said as (2)

(2) the people that are going on the trip.

Without carefully reviewing, minor changes or deletions may readily occur that effect the transcript's accuracy. (If the transcriber will be the person later typing the transcript, a type of "notehand" or abbreviations should be established.) This will speed up transcribing considerably. These may include:

/ /	indicates an utterance which <u>might</u> have been said
( )	transcriber's comments, descriptions
READING	all caps indicate something being read
<u>what</u> are you doing	underlined word emphasized in speech
- - - - -	unintelligible

3) Immediately write down as much of the speech of the interactant as you remember. Leave space for what is missed as in (3), so it can be added as in (4) without reducing the legibility of the transcription.

(3) T: Which one do you think belongs with the three at the top of the page, Linda?

(4) T: Which one do you think belongs with the three dolls that are at the top of the page, Linda?

4) Replay and add those words/phrases missed the first time.

Movement Notations

In addition to the speech, the transcriber must also describe the actions that are occurring. People rarely interact verbally while remaining motionless. Body movement is an integral part of communication. A determination should be made before transcribing about how "heavily" the transcript should be glossed. Alternatives include (5), (6) and (7).

(5) 145 T: Why did you pick this one?

150 T: Can you tell me?

(6) 145 T: (seated next to S) Why did you pick this one? (S looks at page)

150 T: Can you tell me?

(7) 145 T: (seated next to S) Why did you pick this one? (taps at page with pencil) (S looks at page)

149 (S looks up at T and back down at page)

150 T: Can you tell me?

Certainly, (7) "recreates" the scene much more vividly. But if the extent of comments and descriptions is not determined beforehand, the transcriber will tend to be schizophrenic - not knowing whether to get down "everything" or "just the essentials." Or to put it another way, the essentials differ depending on the nature of the questions being posed to the data.

General Issues

Much of the time during transcription is spent in going backwards, going over and over the same segment of tape. It is a very slow process: no one should expect to transcribe an hour's tape in one morning. Eye and ear fatigue set in after a two hour stint.) Rather, an initial attempt transcribing ten minutes required approximately two and one-half hours.

With any tape, problems are bound to occur. The problems covered here, are those concerned with getting down the speech. The suggestions that follow have been successfully tried with numerous transcriptions.

Unintelligible Speech

If the speaker is on camera, much of the speech that seems unintelligible can be deciphered. If, on continual playbacks the sound does not become discernable, try reading the speaker's lips. This method does

work, if the image is clear enough to pick up details. Another method is to use context clues to supply the missing information. Speech transcribed through context, however, should be clearly indicated as such on the transcript.

For example, (8) was completed by studying the conversation with the student that followed in (9).

(8) 030 T: What about the _____?

(9) 033 T: I don't see a flower.

035 T: This is the flower, right.

The missing words in (8) had both p and t sounds in them. From the teacher's speech about flowers (and then several more playbacks), the utterance was transcribed as (10).

(10) 030 T: What about the /two plants/?

The slash marks (/ /) indicate transcription from context. By examining the total conversation, much that seems unintelligible can be discerned. When, however, the speech cannot be transcribed, the transcript should indicate this, as in (11):

(11) 212 T: Show me, George, _ _ _ _ _.

Another similar problem occurs when several people are speaking simultaneously. Our solution was to replay the tape numerous times and at different sessions, trying to get as much of the conversation as possible.

Identifying Speakers

Another problem may be identifying the speakers. (If the transcriber was an observer, this may not be a problem.) Identification of all speakers may not be necessary, but it is helpful. If all speakers are not known, they can be identified with subscript numbers as in (12):

(12) T: Let's count off.

S_1: One

S_2: Two

S_3: Three

S_4: Four

In conclusion, transcription is a slow, methodical process. By careful planning before beginning, however, the transcriber can spend time transcribing rather than making decisions about what and how to transcribe. Thus before starting:

1. Set up a code to identify additions, changes, problems in the transcript.
2. Determine the priorities in the transcript (e.g. language; language and movement of principal speaker; all language and movement of one student.
3. Determine the format for the transcript and follow it when transcribing.

Appendix C: Dissemination

We have disseminated information concerning this project to date in three modes:

- A presentation at the American Educational Research Association annual meeting in New York, March, 1982.
- An article in Research in the Teaching of English, May, 1982, a copy of which is included in this section.
- Copies of the AERA paper have been sent to individuals at more than 50 institutions, some of which are noted in the list provided on the next page.

We are projecting several additional outlets for these findings including a presentation at the National Council of Teachers of English, a presentation at the AERA in 1983 and additional publications.

Selected Requests for AERA Paper Received From:

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